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The Lower Rio Grande Valley's Citrus Industry

By Monty, in Monty's Monthly, McAllen, Texas

To begin at the beginning, about 58 years ago, a wandering priest who had jurisdiction over the Rio Grande Valley, carried some orange seeds out to the Laguna Seca Rancho. Rather, he carried some oranges to the kiddoes of his diocese. From the seeds of these oranges, grew several trees which are standing today as the pioneers of the citrus industry of the Lower Rio Grande Valley.

About the time of the advent of the St. Louis, Brownsville and Gulf railway, now known as the Missouri Pacific System, there came to the Valley a real estate promoter with a long vision. This was Colonel W. E. Fitch. It was he who conceived the idea of growing citrus fruit in the Valley. Sending to Florida for trees, he had planted, just east of Mercedes, the first commercial citrus grove of the Valley. This is now known as the Evergreen orchard, owned by Dr. Kalbfleisch. Probably more people have visited this orchard than any other one in the Valley, unless the Chas. Volz grove south of Mission, can lay claim to that distinction. And the Volz orchard is about the second one planted here.

Several other groves were set out along about the same time, including the Conway and Windbigler orchards of Mission, the Griffing Brothers, of McAllen, and perhaps one or two others.

The industry was slow to get a foothold, however, and it was not un-

til the advent of John H. Shary, colonizer and developer, that citrus growing received impetus sufficient to be recognized as a fixed resource of the Valley. That was along in 1914, if our memory serves us right, or about ten years after the initial orchard was planted. While most of the citizenry of the Valley knew that there were a few scattered citrus groves in this section few of them gave any thought to the potential value of the fruit produced. In fact, as late as 1916, a 11-acre orchard on the outskirts of McAllen, planted by the Griffing Nursery Co., was loaded with fruit and no market for it. Finally a local grocer made a ridiculously low offer to the owners for the fruit and cleaned up a profit of \$4,000 on it when he shipped it to up-state points. It was the town talk for weeks afterwards.

When Mr. Shary began the development of his big subdivision, now known as Sharyland, he began setting out young orchards and placed a price of a thousand dollars per acre on them when planted. The then staggering prices were the gossip of the Valley. People began to sit up and take notice. Many were not only skeptical but questioned the integrity of the company engaged in selling lands at such fabulous prices.

But that was ten or twelve years ago. The orchards set out at that day and time have paid for themselves over and over again.

Following the example set by the Shary sales organization, other companies fell in line, and individuals, seeing the added value to their lands by having orchards, set about planting such acreages as they could get trees for or pay for. The industry grew apace. The past six years have seen the plantings nearly or quite double the plantings of the previous year. All reputable nurserymen have their hands full of orders and keep large crews of men going six days a week, setting out vast new acreages of trees in all sections of the Valley. Even the dry land section is being extensively planted to orchards. Northern Hidalgo, much of southern Willacy, eastern Cameron, and some parts of northwestern Hidalgo counties have countless young citrus groves, practically all of which have been planted within the past year or two, but which are looking wonderfully thrifty and green.

The orgy of planting new groves continues with unabated speed, and the prediction made some years ago that the Valley would be a solid orchard within another ten or fifteen years, seems sure of coming to pass.

The giving of statistical information today would not hold good tomorrow, so many are the changes taking place daily. Drive from one end of the Valley to the other and you will meet a half dozen or more big trucks loaded with balled trees en route to their new homes. These keep

South African Foreign Trade In Fresh Fruits

By Daniel J. Moriarty, Foodstuffs Division Department of Commerce

South African exports of fresh fruit had an average yearly value of \$3,063,000 in the five-year period from 1923 to 1927, while imports of fresh fruit averaged \$196,000 a year in the four-year period from 1924 to 1927.

Value of Total Exports of Fresh Fruit

The following statement shows the value of total exports of fresh fruit from the Union of South Africa during the past five years:

1927	\$4,007,000
1926	3,400,000
1925	3,525,000
1924	1,920,000
1923	2,463,000

The value of exports of fresh fruit in 1927 was \$1,500,000 greater than for 1923—a 60 per cent increase in the past five years.

Oranges (including tangerines), the principal fresh fruit exported from the Union of South Africa, showed an average yearly value of \$1,378,000 from 1923 to 1927. Other important exports were pears, \$613,000 a year; grapes, \$499,000; peaches \$205,000; and plums, \$142,000. Exports of "other fresh fruit" averaged \$226,000 annually.

The bulk of the fresh fruit exported from the Union of South Africa goes to the United Kingdom; small shipments are sent to Portuguese East Africa and the Belgian Congo. An effort has been made in recent years to develop new markets, in view of the fact that there is a limit to the quantity of South African fresh fruits which can be absorbed by the British market. In 1926 there were shipped to the Netherlands 48,000 boxes of pears, 18,500 boxes of grapes, and 1,000 boxes of apples, while 1,800 boxes of oranges went to Germany. In 1927 Brazil took 3,000 boxes of pears, 2,800 boxes of peaches, and 1,200 boxes of apples, and the Netherlands took 3,200 boxes of pears.

Fruit Production in South Africa —Tree Census of 1925

Figures of fruit production in the Union of South Africa are not available, but in 1925 a special census was taken of the number of trees of fruits grown for export, which affords an indication of the extent of fruit production. This census showed a total of 2,558,000 orange trees. Of these 1,893,000 (around 75 per cent)

were in the Transvaal; about 50 per cent of the tangerine and grapefruit trees of the Union were also in the Transvaal. Citrus fruit is also produced for export in the Cape Province and in Natal.

Most of the deciduous fruit trees, such as apples, pears, and peaches, producing fruit for export, were located in the Cape Province, although there is some production in the Transvaal and the Orange Free State.

The following table shows the number of trees in the Union of South Africa producing fruit for export, according to the special census of 1925.

Province	Navel oranges	Other oranges	Tangerines	Grapefruit
Cape	371,000	159,000	11,000	24,000
Natal	66,000	69,000	10,000	1,200
Transvaal	1,077,000	816,000	19,000	27,000
Total, to nearest thousand	1,514,000	1,044,000	40,000	52,000

Source: Official Yearbook of Union of South Africa.

Oranges Lead Among South African Fresh-Fruit Exports

In the five-year period from 1923 to 1927 principal exports of fresh fruit from the Union of South Africa averaged 546,000 boxes of oranges, 46,000 boxes of tangerines, and 26,000 boxes of "other citrus fruit," mostly grapefruit. There were also exported 614,000 boxes of pears a year, 344,000 boxes of grapes, 196,000 boxes of peaches, and 153,000 boxes of plums. Smaller exports (yearly averages) were 22,000 boxes of nectarines, 15,000 boxes of apples, 9,300 boxes of apricots, 1,900 boxes of "other deciduous fruits," 58,000 boxes of pineapples, and 4,700 boxes of melons.

With the exception of 1926, exports of oranges (including tangerines) from the Union of South Africa increased in each year from 1923 to 1927, rising from 400,000 to 802,000 boxes—a gain of 100 per cent. Spain, the largest exporter of oranges in the world, shipped annually around 18,500,000 boxes (of 70 pounds each) from 1922 to 1926, as against 3,500,000 boxes from Italy and over 2,000,000 boxes from the United States. Palestine also sends to foreign markets in the neighborhood of 2,000,000 boxes, while Japan exported annually 433,000 boxes of mandarin oranges from 1922 to 1926. The United States exported 3,600,000 boxes (of 70 pounds) of oranges in 1927, as against 2,700,000 boxes in

1926 and an average of 2,200,000 boxes a year from 1922 to 1926.

In addition to the exports of oranges (including tangerines) from the Union of South Africa, there has also been a noticeable development in exports of oranges from Southern Rhodesia, which adjoins the Union; 43,000 boxes of oranges were exported from Southern Rhodesia in 1923, 53,000 in 1924, 69,000 in 1925, 35,000 in 1926, and 130,000 in 1927.

Exports of Grapefruit Increasing —Other Fruits

Exports of "other citrus fruit" (mostly grapefruit) from the Union of South Africa rose from 13,000 boxes in 1923 to 37,000 boxes in 1927. In the intervening years exports were as follows: 20,000 boxes in 1924, 25,000 boxes in 1925, and 33,000 boxes in 1926. The United States exported 765,000 boxes (of 70 pounds) of grapefruit in 1927, as against 411,000 boxes in 1926 and a yearly average of 335,000 boxes from 1922 to 1926. Other grapefruit-exporting countries are Cuba (Isle of Pines), and British West Indies (principally Jamaica). The Isle of Pines exports around 200,000 boxes of grapefruit a year, mostly to the United States, while Jamaica exports from 50,000 to 75,000 boxes a year, practically all to the United Kingdom.

Foreign Markets for South African Fruits

Citrus fruits.—The United Kingdom is the principal market for exports of citrus fruit from the Union of South Africa. Of the average yearly exports of 546,000 boxes of oranges during 1923 to 1927, practically all went to the United Kingdom, as was also the case with exports of 46,000 boxes of tangerines and 26,000 boxes of other citrus fruit (mostly grapefruit). South African exports of oranges, including tangerines, amounted to 802,000 boxes in 1927 and 579,000 boxes in 1926, practically all of which went to the United Kingdom. South Africa exported 37,000 boxes of grapefruit to the United Kingdom in 1927 and 33,000 boxes in 1926.

South Africa Fruit-Shipping Seasons
On account of its geographical position the seasons in South Africa are the reverse of those in the United

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running up and down the Valley throughout the working hours of every day.

Approximately there are now planted 100,000 acres of citrus groves in the Valley. This would mean about 7,000,000 trees. Some statisticians in giving out figures have made the aggregate acreage considerably less than this. Both claim to be correct, but as related above, the figures are mounting daily, so write your own ticket on what the industry is destined to be.

One prominent citrus authority writing in this magazine some months past, stated that while the present citrus crop was not our money crop, it is bound to become that in time. He is quite right.

The profits in growing citrus vary widely. This is due to many causes. Primarily, we might say that the root and bud stock has more to do with heavy production than any other phase of citriculture. So it behooves those contemplating planting a grove to use the utmost care in selecting the nursery from which the trees are purchased. There are half a dozen or more first class nurseries in the Valley, where you will get stock budded from the best producers in this district and from California. There are other nurseries planted along the banks of the river of Doubt. Never buy cheap trees just because they are "cheap"; they are costly at any price. This advice has been given out before this time, but some have not heeded it.

Of course your land comes in as a secondary consideration. There are various kinds of soils in the Valley and not all of it is adapted to the successful growing of citrus. Expert advice from some one you can rely upon should be sought before buying orchard land, or if you have already bought, you should get advice as to whether your land is adapted to citriculture, or what is best to grow on it. Sad to relate there are a number of orchards in the Valley that are not only worthless, but encumber land that could be put to some profitable crop. Either the land is not adapted to fruit growing, or some unprincipled dealer has palmed off worthless citrus stock or poor land on the owner.

We have frequently printed reports and some of these were sworn to, of tremendously profitable crops from orchards, scattered throughout the Valley. Without minimizing or detracting from these reports, the which were without doubt true, they did not of course, represent average production.

THE CITRUS INDUSTRY

Exceptional yields of \$1,000 to \$1,500 per acre for 8 to 10 years of age does not mean that these orchards will produce that much money year in and year out. Some years the crop will quite naturally be heavier than others. Trees are something like human beings; they want and take a rest when nature overtakes them. Not even the reliable land companies make any such extravagant claims that orchards will pay their owners any such figures as these exceptional instances show. We not only have phenomenal yields of fruit from some orchards at times but the same thing applies to cotton fields, cabbage and other vegetables. Markets are also to be considered and the inevitable law of supply and demand governs the final dividend check.

The Valley's citrus crop has not as yet run into the millions of dollars that our cotton crop has brought every year. The time is rapidly approaching, however when it will far outdistance the combined value of all other farm products in this district, if predictions of the wise ones are right.

At any rate, the industry is on such a gigantic scale at the present time, that little thought is given to other potential farm wealth in the future. With a production of from 15,000,000 to 20,000,000 boxes of fruit per year in this region, based at only one dollar per box net to the grower, (and it will always be much better than that) you can easily figure out the potential possibilities of citriculture in the Valley. Within another decade, the outlook is far even a heavier yield than the above figures.

About over-production. Those capable of making an intelligent survey of the situation believe that there will never be an overproduction of Valley grapefruit. The quality is so incomparably superior to any grapefruit produced anywhere in the world, that the demand for Valley grapefruit is growing like a veritable mushroom. And furthermore, Valley canned grapefruit is in such wide demand in northern districts, that cannery have been able to supply only an infinitesimal part of the demand. California, where our boxed fruit is taboo, and not allowed to enter the state, uses all of our available canned grapefruit.

It is not at all likely, therefore, that there will ever be a surplus of unmarketable fruit produced in the Valley. Demands from England and Germany, cannot at the present time be filled. Orders from London, placed with packing houses here in the Valley this season were turned down,

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there not being enough fruit to supply the domestic demand. However, a time will come when we can market our fruits in Europe to much advantage. By the time a surplus over domestic demands accrues, we will have deep water at Port Isabel and ocean freight rates will permit of our competing with other citrus sections of the world.

Citrus, with our other farm commodities will, in the course of time, make the Rio Grande Valley the richest subdivision of similar size, of any agricultural community in the world.

Grow citrus for wealth. Eat citrus for health.

INSPECTORS KEEP OUT

MANY DANGEROUS PESTS

Historical Inspection
Quarantine inspectors of the State Plant Board succeeded in intercepting many plant pests being brought to this country from Cuba by veterans and their families who attended the recent reunion there.

In one day the inspectors were faced with 1,436 passengers who had with them 2,331 pieces of baggage. From this lot 86 pieces of contraband plant material were taken from the passengers. Much of this material was infested with scale insects and fruit flies. One lot of five guavas contained 23 live maggots of the West Indian fruit fly.

A summary of the activities of the inspectors during the convention shows that they inspected 8,906 pieces of baggage, belonging to 5,368 passengers. A total of 311 pieces of contraband plant material were found and taken from the passengers.

The inspectors found it necessary to work day and night during the days when the visitors were coming back from the reunion. They work side by side with the customs officials of the government, seeking to protect the agricultural interests of Florida from the thousands of dangerous plant pests that are ever seeking admittance to the state.

Ask the home demonstration agent about the all-year garden contest for 1929. Get 15 contestants and see that your county is represented. Grow green vegetables 12 months of the year and eat them. They are good for everybody.

If you want your lawn to look as good in January as it does in June get some Italian Rye grass and seed it on the present sod. Four to six pounds of seed is enough for 1,000 square feet of lawn space.

Citrus Fertilizing In Florida

Every Florida citrus grower realizes that one of his biggest problems, and one on the proper solution of which depends the extent of his profit or loss from the operation of his grove, is that of proper fertilization. Proper fertilization forms the very foundation of quantity production of quality fruit. Other factors enter into the equation—cultivation, irrigation, the proper and timely application of insecticides—but without the foundation of proper plant food, all other factors must fail.

Fertilizer concerns catering to the citrus trade maintain elaborate bureaus for the study of fertilization in relation to soil types and climatic conditions, and from time to time the results of these studies are passed on to the growers in the forms of bulletins. In the past, The Citrus Industry has published a number of these fertilizer programs coming from fertilizer experts for the benefit of its readers. The latest of these programs coming to the notice of The Citrus Industry is that of the Armour Fertilizer Works, from which the following extracts are taken:

Plant Food

Nitrogen, Phosphorus and Potassium are the three plant food elements contained in commercial fertilizer. These elements are usually expressed as Ammonia, Available Phosphoric Acid and Potash.

There are few, if any, Florida soils adapted to the growing of citrus that are not deficient in these elements. For well balanced growth and proper development of tree, it is necessary to use commercial fertilizer. Experience proves that commercial fertilizer is not only essential but frequently the deciding factor in the tree's growth as well as the quantity and quality of its fruit.

The kind and quantity of plant food needed depends upon the size and condition of the tree, season of the year, character of the soil and the analysis of the fertilizer desired. For this reason an iron-clad rule to cover all grove conditions and types of soil can not be laid down.

When to Fertilize

The citrus tree has three definite periods of growth and then goes into a comparatively dormant condition during the winter. The logical plan is to make three applications of fertilizer: one for growth and setting of bloom in the spring; second, early in the summer to further increase

growth for future bearing surface; third, during the fall to harden the tree against cold and lay in a reserve supply of food for its use at the first impulse of spring growth.

The spring and summer applications to both young and bearing trees are usually made just in advance of each period of growth. The fall application to young trees should be made preceding the fall flush of growth, while on bearing trees it should follow the fall flush of growth. Proper timing of each application is very important.

Spring Application

The importance of fertilizing citrus trees in the spring cannot be too strongly emphasized. The most vigorous period of growth, the blooming and setting of the crop all occur at this season of the year. A stronger, better matured growth will be made and a better crop will be set by the tree that has been properly fed.

An application of fertilizer should by all means be made in early spring. The object is to get the fertilizer on after danger from cold has passed and, if possible, before growth starts. First growth impulse is always strongest and, if seasonal conditions are favorable, the fertilizer should be applied about two weeks in advance of growth. The right time usually comes between February 10th and March 15th.

Summer Application

It is the general opinion of Florida citrus growers that this application is by far more important than either of the other two. It must feed the tree over a longer period and during the rainy season; it must mature the present crop and force new growth which will be the foundation for the following crop. Without sufficient food very little new growth will be made during the summer on which to hang the next crop. Also, if food is lacking, the percentage of "drops" will be heavy and the fruit that reaches maturity will likely be small and of poor quality.

It is, therefore, logical to make a liberal application of a properly balanced fertilizer during the summer. The fertilizer should be worked into the soil fully two weeks in advance of new growth. All danger from cold has passed and there is no excuse for being late with this application. It is usually made the latter part of May or early in June.

On bearing trees cultivation should be stopped at the beginning of the

summer rains, but around young trees a narrow strip should be kept clean during the entire summer.

Fall Application

On young trees fertilizer applied at this season of the year is for the purpose of forcing new growth and for hardening the tree so that it will better withstand cold during the winter months. On bearing trees this application is made to maintain and mature the crop on the tree and to allow the tree to take up and store food in its new wood for producing spring bloom and growth.

Without a liberal application of fertilizer in the fall, the tree will become weakened, causing a heavy percentage of "drops", and the spring bloom will naturally be light. Under normal conditions, this application is THE one that governs spring bloom—the foundation of the following crop.

A heavy application of fertilizer should be made in the fall. The time for making this application to bearing trees is usually between October 20th and December 1st, depending on seasonal conditions. Young trees should be fertilized in September, just preceding the fall flush of growth.

Quantity to Use

The tree should have as much fertilizer as it can use to advantage. Over-forcing is harmful and this sometimes occurs on young groves when the owner is in too great haste to get them into bearing. On the other hand, starving cuts down crops, reduces size and quality of fruit, and cuts down bearing surface for future crops. On young groves starving usually results in the trees becoming hard and stunted—it gives them a set-back that may delay their coming into bearing by as many as two seasons.

Young Trees

Young trees should not be fertilized at the time of planting. At least two weeks should elapse before any fertilizer is used. Trees set during the winter months should not be fertilized until all danger from cold has passed. During the first year, if the three-application schedule is followed, one pound per tree is usually used to the application. Some growers fertilize young trees four to six times each year, and when this practice is followed the amount of fertilizer per application is slightly reduced. After the first year, up to and including

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South Florida Fair Nears

Preparations for the annual South Florida Fair and Gasparilla Carnival at Tampa, Florida, opening January 29 and closing February 9, are rapidly nearing completion. General Manager P. T. Streider, veteran of many fairs, declares that every present indication points to the best fair and largest attendance in the history of Tampa fairs.

While known officially as the South Florida Fair, the fair is in reality a state fair, or even a great Southern Exposition, for not only is every section of Florida represented in the varied exhibits, but many other Southern states contribute to the magnitude of the exposition.

As usual, citrus will supply by far the greater portion of the exhibits and demand by far the greater portion of the attention of visitors, for the South Florida Fair has come to be known as the greatest of all citrus shows and this reputation will be sustained this year, in the view of Manager Streider.

But no element entering into the greatness of Florida as an agricultural, horticultural, industrial or commercial state, will be neglected by the fair management or overlooked in the exhibits. In fact, the fair will be a great Southern Exposition and will demonstrate to ten of thousands of visitors the magnitude of Southern achievement.

The last available foot of exhibition space for the South Florida Fair has been taken, and P. T. Streider, fair manager, said every indication pointed to a bigger and much better fair this year than ever before, with a larger attendance.

Mr. Streider is in high spirits about prospects, as he looks over the grounds, and sees hundreds of men at work preparing for Florida's most spectacular event. In every building booths are being prepared, with virtually all county exhibitors on the ground early. Preparations have been under way for more than a month for a fish and game exhibit more than three times as large as last year. The flower show will be a third larger. The Italian government has given its support to an Italian exposition that will fill one of the largest buildings on the grounds. The poultry show will be larger. A new addition has been built for an art exhibit. And the quality of every type of attraction has been improved, Mr. Streider said.

Grandstand To Be Bigger

Of all work under way, Mr. Streider is most interested in the new addition to the main grandstand, to accommodate almost twice as many spectators, which is being rushed to be ready for the opening day.

This increased seating capacity has made it possible for him to spend almost twice as much money on grandstand attractions, with prospects of an attendance big enough to meet expenses. Heretofore this was impossible, because of lack of seating capacity.

"You know," he said, "this will be my twenty-fifth year in the fair game. I'm getting to be a pretty old codger at it, and I should be able to see things as they are. I have been nine years with this fair, and I know we are going to put it over this year in a bigger way than it ever has been put over before. It's not only going to be our best fair; it will be one of the best fairs in the country."

Attendance Set Record

Mr. Streider is aiming high in speaking of a bigger attendance than last year, for 429,000 persons hit the turnstiles last year, a record up to that time. In addition to better attractions, Mr. Streider is looking forward to notable results from special rates granted by railroads from all parts of the country to the South Florida Fair. Thousands of persons will take advantage of these rates, he said.

The grandstand attractions will be a feature of the fair. Workmen are building two big platforms, 40 by 60 feet in size, on which acts will be kept hopping at the same time. Between them there will be a large ring for principal acts. Behind the platforms and ring the aerial acts will have their set-up, and behind these over a stretch of more than 500 feet there will be set the fireworks spectacle.

The addition to the grandstand will provide much needed room, including four offices to be occupied during the fair, electricians' headquarters, 14 dressing rooms for performers, and toilet accommodations. One part is being fitted up for permanent quarters for baseball teams, with showers and everything. The main grandstand entrance will be between the old and the new stands, and will lead directly across North Boulevard to the midway.

In many ways provisions are being made for better handling of crowds,

including four ticket gate entrances. The parade route will be changed, the exit being at the Boulevard and Cass street corner.

Italian Exhibit Feature

Mr. Streider is particularly interested in the Italian exhibit, and said that the Tampa Italian colony is co-operating whole heartedly with the Italian chamber of commerce, Italian authorities, and other organizations. The exhibit will be in Wall hall, a two-story building, and will occupy both floors. There will be exhibits of virtually every form of Italian art in addition to commercial exhibits, and music will be featured during the whole fair period.

This exposition movement by Italians has caused comment in many countries, and Mr. Streider has received requests from as far away as Russia for information about the fair. He hopes to see the international exposition grow to be a permanent South Florida Fair feature.

Almost as interesting is the work being done under the direction of J. E. Wallace to make the fish and game exhibit worthy of long remembrance. Mr. Wallace spent six weeks last summer collecting bird and other exhibits. Wild life from the depths of the ocean to the tops of the tallest Florida pines will be included, sponges from off Tarpon Springs to a hawk's nest as big as a dog house taken from a gnarled old dead pine.

With space at a premium, Mr. Streider has been able to pick some and exclude other exhibits. Actually he has agreed to find more space than he has available, in the expectation that someone will fail at the last minute. Recently a nationally known organization asked for a whole building, and had to be content with 75 feet.

Something of a carnival spirit hangs over the old fair grounds already. Workmen are everywhere. Little racing cars and other paraphernalia of fair days have arrived.

CANADIAN IMPORTS OF PALESTINE ORANGES

In a report published by the Department of Commerce, Mr. Romeyn Wormuth, American Consul, Saint John, New Brunswick, Canada, states that on December 4, 1928, there arrived by the Canadian Pacific Steamship "Montclare" 280 boxes of oranges from Palestine. This is said to be the first consignment of oranges ever made to Canada from Palestine.

CITRUS COMMENTS

—BY—

Charles D. Kime, Orlando, Florida

This department is devoted to furthering horticultural interests of Florida. Letters of inquiry, discussion or criticism will be welcomed.

DETERMINING GROVE SOIL CONDITION MAY BE OF GREAT IMPORTANCE

pH determinations to be of value must give data showing how favorable our soil conditions may be for growing trees and producing fruit. In groves where conditions are good and fruit crops heavy, as indicated by the grove itself, pH determinations are not necessary except as they might indicate a trend in conditions.

Groves that are in bad shape from any cause are the ones where pH determinations may be of value. However, only some of such properties are likely to be out of the optimum range.

Those conditions likely to be confused as indicating a poor soil balance whereas the soil may actually be in excellent condition, are chlorosis from use of too much low grade fertilizer, over-loading with available nitrogen, or over-forced growth from any other cause than soil acidity, frost injury, burning from spray effect, water injury and conversely, dry weather injury. These last are probably the most important as a very similar effect is caused in the tree when out of the optimum pH range, according to data we already have.

Spring Bloom Formation is a Serious Matter

Winter is a busy time for the fruit grower, and often it is a very serious time. Fruit shipments are in full swing with the vagaries of the market to affect the price. Weather is uncertain as regards moisture and temperature. Directly through it all the grove prepares itself for a new effort and even though it is still loaded with fruit, a new bloom and a new growth appear and a new year is begun. There is always a magic about the Spring of the year that is both felt and seen.

Whether poor or good, Spring growth shows the influence of past conditions. It reflects ownership care extending back throughout the past year. Such care as has been given

plus weather conditions practically decides the amount of crop for the new year. The Spring fertilizing is the stimulus that brings out the bloom, if there is any, and gives the new leaves normal size and green color.

Prodigious effort can well be used to characterize Spring growth and bloom. The amount of food material used at this time is enormous. The proper maturity of bloom alone is a serious drain on the tree vitality. This past Spring many groves matured heavy blooms, but were extremely short on new growth. Usually the reverse is what happens. There is a plentiful development of Spring growth but a poor bloom-formation and a lighter set of fruit than the owner desires or needs. This present Spring is likely to see weak bloom of low vitality and as a result, a poor crop, unless grove condition is maintained at an unusually high level.

The main Spring requirement is a good bloom that will set fruit. It does not have to be abundant nor heavy to fulfill this need, as often a super-abundant bloom is seriously lacking in vitality and results in a very poor set of fruit. If this condition is fulfilled, the Spring tree-growth may be considered of secondary importance. Excepting early varieties or those regularly shipped before the middle of February, there is a mature crop of fruit on the tree at blooming time, though in the case of tangerines, the bloom itself occurs sufficiently late so that the crop is usually off before it can interfere with the set of fruit.

Occurrence of Bloom

Many growers have noted a very marked variety variation in set of bloom. In fact, such a variation is so marked that certain very desirable varieties cannot be grown commercially because of the small crops they habitually bear. The most outstanding one of this group is the Navel, and frequently a very poor set of fruit is noted in Valencias. In the latter variety, any expenditure could be justified that would result in a method of handling, whereby a good set of bloom could be secured each

year. The Valencia is a good bloomer, but often sets a very poor crop. The solution of this problem is well worth much experimental effort.

Similar varieties of citrus in approximately the same physical condition, excepting the so-called "Kid Glove" group, bloom close together at the same time of the Spring season. The tangerines and those fruits apparently somewhat related to the tangerine group bloom somewhat later each year than the round orange or grapefruit, and usually there is no fruit on these trees to interfere with the bloom effort which they make, though undoubtedly after more extensive plantings have been made, Kings and Temples will be held later.

Position of Bloom on the Tree

It is both surprising and interesting to note that there is a different grouping of bloom occurring on the same tree, insofar as its relationship to the growth of the tree is concerned, and there does seem to be a very definite relationship in the vitality of the individual flower, together with its ability to set fruit and the position in which it occurs. It has been frequently noticed, for example, that single bloom occurring on the end of new terminal growth that comes in the Spring of the year practically always sets a fruit, resulting in a good crop, provided the terminal growth is plentiful. On seedling groves, many growers have noticed that bloom occurring in the leaf axle will usually set a good crop of fruit. The older growers all seem to feel well satisfied with their prospects when they find this leaf axle bloom, and they seem to consider this the strongest bloom which they can possibly get. It usually occurs before any Spring leaf growth appears from the same portion of the tree and has given rise to the feeling that too much Spring growth means a poor crop. The conclusion regarding occurrence of bloom among the growers seems to be that the leaf axle bloom is the strongest, and that a single bloom occurring on the end of terminal growth comes very close to being a

skip altogether, and that the thing they desire is the gradation between the two, as they can thereby come nearer insuring a good crop.

Some Apparent Causes of Good Bloom

It has been noted many, many times that trees with a heavy crop are very slow in blooming, as compared to trees with no crop. Similarly where they are not in condition to bloom, they are also very slow in putting out their Spring growth. In those groves with the spotted crop, trees with no fruit always bloom first, as will also those parts of trees carrying no crop. Therefore, the time of blooming is very definitely influenced by the fruit still on the tree. This occurrence is responsible for the desire to pick fruit before blooming starts in the Spring, and there is no doubt that this is an excellent practice. However, even the mid-winter varieties and all the late varieties are often still on the tree at blooming time.

Whether with or without fruit, any bloom that may occur will drop freely, if the tree lacks vitality from any cause, and, conversely, it tends to stick and set a good crop where the tree vitality is high and especially where the tree color is good, even with a crop still on the tree. It does not seem to be impossible at all to set a good bloom consistently for a number of years, either with or without a fruit crop being on the tree at the time; though the difficulty is somewhat increased by the possibility of harmful results to the fruit crop still on the tree from bloom formation itself and the effect of grove fertilizer and grove work.

Tree Color

There seems to be a very definite relationship between good tree color at blooming time and the amount and set of bloom. As has been frequently noted, full crop trees are slow in blooming, and if of light color, do not like to bloom at all. It can also be easily observed that groves of light color at blooming time in the Spring rarely, if ever, set a good crop of fruit, and when neglected continuously through a period of several years, they will take three to four years to mature bloom buds, whereas groves in good condition will do the same thing in one year. That is, yellow trees will bloom, but only once in several years, and then not so heavily as will good colored trees, though the quality of the fruit that is set is usually very good.

Dark colored trees, that is, a good healthy green color, are usually consistently good bloomers. Such trees,

when carrying a crop of fruit usually bloom and set a new crop when they are well backed up with a good grove procedure. A color index is an important thing in determining tree condition in the Spring of the year. At that time at least a good dark color is very desirable, though hard to get if one waits too late before building up a good tree reserve.

Need of Moisture

Due to the immense amount of activity going on within the tree itself, a plentiful supply of moisture is vital to the tree needs at blooming time. The tree is attempting to put out a huge, complete regenerative process when it blooms. The balance between success and failure is very delicate. The bloom must have excellent vitality in order to set fruit. It must have an abundant supply of food material of the kind which can be used in the formation of the essential parts of the flower. In addition to this, sufficient food must be taken up by the tree for the formation of new spring growth. To successfully handle all of this activity, the tree must have been storing food materials for a long period of time previous to the effort and it must have available for immediate use reserved supplies in the soil upon which it feeds. The use of all of this material depends on sufficient moisture. Without it, very poor results will be obtained. If irrigation is available, the supply of moisture will depend entirely on the grove owner. If irrigation is not available, the supply of moisture can only be partly compensated by application of quickly available and stimulating fertilizer materials.

Fertilizing

At blooming time it is too late to attempt to set bloom buds, but it is not too late to stimulate growth and growth is vital to the process of bringing out the bloom buds already set in the tree or in process of formation. The Spring requirement seems to be largely one of stimulation, together with an abundant supply of moisture. When these two conditions are supplied, the grower will have done all he can to insure a good set of fruit.

With no fruit crop remaining on the trees, the process is not a difficult one. If, however, there is still fruit which is to be shipped, the influence of the Spring fertilizer formula must be carefully weighed before it is applied. With seedling varieties, this seems to be especially vital. With Valencias, there is more leeway, though a too stimulating fertilizer, that is, one not well balanced with potash and phosphoric, will cause a

coarsening of the fruit. In varieties other than Valencias, the maturity period of the fruit is past when Spring bloom occurs; therefore, anything that is done to influence growth is likely to cause droppage. It is particularly important in such varieties to build up the tree vitality for the Spring bloom at the same time that the crop is being matured, that is, the bloom should be planned-for, during the last half of the previous year. In this way, the crop can be held somewhat later without more than the normal amount of lossage that occurs when holding a maturing crop beyond its maturity period.

DR. O. W. SADLER DIES AT TARPON SPRINGS

One of Orange county's foremost pioneers, Dr. O. W. Sadler, passed away at Tarpon Springs recently and was buried from the home of his daughter, Mrs. Ada S. Simpson, Tangerine, on Friday afternoon. Interment was in the Mount Dora cemetery.

Dr. Sadler was 87 years of age a week before he passed on. He was one of the early enthusiasts in the organization and work of the Florida Citrus Exchange and was for many years president of the Mount Dora sub-exchange. He was one of the organizers and president of the Mount Dora Co-operative Citrus Culture Association.

The funeral services were conducted by Dr. E. E. Johnson, rector of the Episcopal church of Eustis, assisted by the minister of the Inness church at Tarpon Springs.

Dr. Sadler is survived by one daughter, Mrs. Ada S. Simpson of Tangerine, and two sons, O. W. Jr., of Mount Dora, and S. S. Sadler of Tangerine. S. S. Sadler is a member of the board of county commissioners and treasurer of the Orange County Chamber of Commerce.

MARION CLUB BOYS

MAKE GOOD YIELDS

Marion County club boys made some good yields of corn during the past year, reports County Agent Clyde Norton. John Martin at Moss Bluff made 300 bushels on five acres of muck land without the use of fertilizer. On another acre he used 200 pounds of superphosphate and 200 pounds kainit and made 73 bushels.

Robert Williams of McIntosh made 51½ bushels of corn on one acre of high land. He used 400 pounds of mixed fertilizer and a side dressing of 100 pounds of nitrate of soda.

The Citrus Industry

with which is merged The Citrus Leaf

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413-415 Stovall-Nelson Building
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Telephone _____ 4819

S. L. FRISBIE, Editor and Manager

FRANK KAY ANDERSON _____ Assistant Manager
C. D. KIME _____ Horticultural Editor
A. G. MANN _____ Production Manager

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GROVE CALENDAR FOR JANUARY

Timely Suggestions for Grove Work During the Present Month

This is one of the best months for setting out grove trees. Head back all newly set citrus to 14 to 16 inches and bank immediately to protect from cold.

Prune trees from which the crop has been removed. Prune lightly, removing only dead or severely injured wood.

Late in the month spray with 3-3-50 Bordeaux-oil emulsion (1 per cent oil) for scab.

Watch late fruit for rust mites.

Inspect your trees, particularly young ones, for citrus aphid and destroy all colonies found.

TWO GREAT CITRUS SHOWS

Before the next number of The Citrus Industry is issued, two great Florida shows will have advertised the extent of Florida's citrus industry, will have passed beyond the pale of current events and will have become matters of citrus history.

The first of these great shows will be the Florida Orange Festival to be held at Winter,

Haven January 22-26 inclusive. This is the outgrowth of the Polk County Orange Festival, originated some years ago and repeated each season until the present, when the sponsors determined to broaden the scope of the exposition and make it, both in name and reality, a statewide exposition of Florida's greatness as a citrus producing section.

This is strictly a citrus exposition in its truest sense, and it is hoped this year to make of it one of the very greatest exhibitions of citrus products ever held, either in Florida or elsewhere. Held in the very heart and center of Florida's extensive citrus producing region, this ambition of the backers of the festival would seem to be well within the limits of possibility. Certainly, this festival will provide for winter visitors and residents of the state alike, an opportunity to view some of the very finest fruit and most tempting displays ever assembled in Florida.

The second of the expositions to be held this winter is that of the South Florida Fair and Gasparilla Carnival to be held in Tampa from January 29 to February 9, inclusive. This is one of the regular winter features in Florida citrus circles, for while not intended solely as a citrus show, the South Florida Fair does each year bring together a wonderful exhibit of citrus fruits from every citrus producing county in the state, including those from the newer Satsuma sections of West Florida.

Here the contests between citrus producing counties is intense, the honor of carrying off the major prizes for county exhibits being very keen, and some exceptionally artistic work in designing and decorating the various exhibits is always in evidence, while particular attention is paid to the selection of the finest and best appearing fruit for the contests.

No visitor to Florida should fail to attend one, or if possible, both of these great expositions, for at them may be gained a knowledge of Florida's citrus possibilities which may be had in no other manner. Citrus growers, county agents, boards of county commissioners and business men are taking an active interest in making these citrus exhibits this year the best the state has ever known.

THE GROWER'S PART

The marketing of citrus fruits is a big problem. It is, indeed, one of the greatest problems of the industry. Its solution is one of the things toward which every grower, every shipper and every well wisher of Florida should lend his efforts.

However, The Citrus Industry does not agree with those who assume that it is the only problem facing the industry. Great as is this problem, there are others which are of equal, if not greater, importance, and the grower or shipper who fails to realize this fact is falling far short of a realization of the possibilities of the industry.

The proper marketing of the citrus crop, proper grading, orderly distribution, adequate national advertising are all a part of the program for the betterment of citrus conditions in Florida. But, even though we solve all these

problems—and solve them right, we are still far from having achieved the utmost of our possibilities for improvement of conditions.

We must recognize at the outset that the ultimate consumer demands certain things of the citrus which he buys. He demands excellence of quality and attractiveness of appearance. These qualities he is willing to pay for. Having recognized this fact, as taught every day by quotations on the wholesale markets, we must go a step further and recognize the fact that the consumer will not buy at a profitable price fruit which habitually fails to meet his requirements. A good salesman may sell a buyer something which he does not want—once. An exceptional salesman may sell him something he does not want twice, but no salesman can continually sell the same consumer a thing which he does not want.

This means that growers and shippers must study the demands of the consumer and work persistently and consistently to meet that demand. This, all too many growers are neglecting to do. An entirely inadequate proportion of our fruit comes up to the standard demanded by the consumer. There is no better citrus grown in the world than the BEST Florida citrus. Everyone acknowledges that. The trouble is that too little of our entire product grades BEST and entirely too much of it grades poor—at least from the standpoint of appearance, which is the gauge by which most consumers govern their buying.

Fancy Florida citrus fruit consistently tops the market day after day, while off grade fruit or fruit of poor appearance is selling for less than cost of transportation in many cases. There is but one remedy for this condition, and that remedy lies with the grower. He must produce fruit of the quality and of the appearance that the ultimate consumer demands. No amount of sales ability on the part of his marketing agency can dispose of his fruit at a profit where there is no demand for the kind of fruit offered.

Fertilizers cost money—but fruit of good quality cannot be produced without fertilizer. Insecticides, too cost real coin, but bright fruit which appeals to the eye and separates the consumer from his money, cannot be produced without combatting the ravages of insect pests and citrus diseases. Grove work costs money, but good fruit cannot be produced without grove work. With a range frequently running as high as \$7 to \$8 per box between fancy and off grade fruit on the auction markets, it would be easy to see where a few cents per box spent for fertilizers, insecticides and grove care may mean the difference between high profits and heavy loss to the grower—for the grower ultimately pockets the loss.

GRAPEFRUIT AND THE "FLU"

With several agencies carrying special advertising emphasizing the importance of citrus fruits in combatting the ravages of "flu" an epidemic of which now seems widespread over the land, there seems reason to believe that a largely increased consumption of citrus fruits may be anticipated.

Backed by the expert testimony of leading

physicians from all sections, citrus agencies are placing before the consumers the exceptional merits of citrus, particularly grapefruit, in the prevention and treatment of this malady.

One feature of this campaign, and perhaps the most important, is that once people have become accustomed to the use of citrus fruits as a health measure, they will more than likely continue the practice from desire for the fruit itself.

ADVERTISING HEALTH

QUALITIES OF GRAPEFRUIT

Grapefruit as a wholesome preventive against and a remedy for influenza is being stressed by the Florida Citrus Growers Clearing House in a smashing, nationwide advertising campaign. All advertising funds expended up to February 15th will be used to stress the beneficial effects that may be had from a generous partaking of grapefruit and other citrus, as proven by the experience of medical authorities throughout the country.

The advertisements will appear in nearly two hundred newspapers throughout the east and also the central west, in which area the epidemic first reached alarming proportions. The newspapers are published in 26 states and have a combined circulation of thirteen and one-half million. Each newspaper will carry such advertisements five or more times.

In addition to the newspaper advertising, a double page spread, bearing a similar appeal, will appear in the Saturday Evening Post January 19th. This alone will receive a circulation of approximately three million.

The idea advanced in all the advertisements is that grapefruit and other citrus fruits build up the alkaline reserve and counter-balance acidity. The individual thus is able to offer more stubborn resistance in combatting a possible attack of influenza.

The radio is also being used each Friday afternoon in broadcasting this message in an extensive hookup out of New York City.

The advantages of citrus thus are being stressed in messages read and heard in millions of American homes each day.

T. P. Remy, Florida representative of the Texas Co. in the introduction of its spraying oils in Florida, is now on a tour which will embrace the Rio Grande valley of Texas, where a heavy acreage of grapefruit is just coming into bearing. Mr. Remy is a former Texan and is well acquainted with conditions in the territory he is now visiting.

The best New Year resolution any citrus grower can make is that he will produce more BRIGHT fruit this season than he has ever produced before. If he will make that resolution—and make it stick, he will make more money than he has ever made from a like amount of fruit before.

Quantity production of quality fruit is a thing every citrus grower should try to achieve. In proportion as he does it, his profits will increase.

Orange Festival Now State-wide Institution

Great institutions, like great individuals, are the result of dreaming and planning and striving faithfully toward a worthy goal and a high standard, and as this may be said of corporations and organizations that have made their impress upon the commercial and ethical life of the nation, so it may be said with regard to the Florida Orange Festival, which this year makes its bow to the people of Florida and the United States at Winter Haven on January 22 to 26, inclusive. For the orange festival is the result of pioneering by a group of brave souls who had a vision of a great exposition that would herald Florida's "greatest industry" to the world and blaze the way to a more comprehensive display of the fruit that had made the state famous.

While 1929 will be the first season for the Florida Orange Festival as a statewide institution, four previous years have seen the Polk County Orange Festival hold forth in Winter Haven in this same pioneer work of acquainting the world with Florida citrus fruit and their by-products. The orange festival idea was first conceived half a dozen years ago, and in the fall of 1923 took tangible form in the creation of a Polk County Orange Festival committee which sponsored the first countywide exposition, held in Winter Haven in the latter part of January 1924. This festival was held in booths built on Fourth and Fifth streets around the city part in the heart of the business section. Everything was carried out on a modest scale. There were several dozen booths, of which only seven or eight contained citrus exhibits. The festival was manned entirely by Winter Haven business men. Most of them dropped their business and got out and worked to put it 'over.' Several thousand dollars paid the bill, and there was a slight deficit. The attendance was estimated at 10,000 out-of-town people for a three day fair. But the first orange festival was a success and Winter Haven was so well pleased with itself as a 'fair' town that it was voted to hold another the following winter.

In 1925 the second orange festival was held, as before, in the center of town. There were more displays in the booths, but the citrus exhibits were no more numerous or elaborate. There was more publicity given the

affair and consequently the attendance was larger—estimated at 15,000 out-of-town visitors for the three-day period. More and better prizes were given for citrus, commercial and decorative booths, and the same was true of the street and float parades. The year ended with practically all bills paid.

In 1926 Winter Haven was at the peak of the boom period—although the hectic season was about to end, of which the populace was ignorant—and it was voted to dispense with the festival—a sad mistake, as was realized later. By the fall of 1926, the mistake was recognized and steps were taken to resume the exposition. Late in January, 1927 the third festival was staged, this time on Sixth street, a block from the old location. There were 170 booths, of which 10 were devoted to citrus. However, displays were of a finer quality and the entire festival showed decided improvement over the former two. More than 20,000 out-of-town visitors are said to have attended the festival, this time a four-day affair. The season closed with a slight balance in the treasury.

With the close of the 1928 season, the executive committee of the festival, realizing that some drastic step must be taken to enlarge the scope of the organization if it should ever grow beyond a provincial affair made recommendations that its scope be widened and that it be made a state-wide institution. The local press encouraged the idea and supported the committee and at a meeting early in the spring the Chamber of Commerce, which had given birth to the festival idea back in 1923 and had been the sponsoring parent all through the years, sanctioned the changing of the name to the Florida Orange Festival and the enlarged program. The outstanding factor in the change was the naming of a full time general manager in the person of J. B. Guthrie, whose success in the realty development business and his work for the clearing house association, a child of the 1928 Polk County Orange Festival, admirably fitted him for the position. Mr. Guthrie became general manager on September 1, 1928, and immediately began laying his plans to put on an exposition that for size and splendor would prove a fair rival of the Cali-

fornia citrus show at San Bernardino. A month later, Guthrie established headquarters in the newly acquired Chamber of Commerce building at Sixth street and Avenue B Northwest and was launched on his mission of building a real Florida Orange Festival in which citrus should have its rightful place and be not merely a side-line or adjunct of a "county fair", such as had heretofore been the case.

The announcement that a statewide festival was to be attempted was greeted with enthusiasm by local citrus and commercial circles and within a short time words of commendation began to come in from other parts of the county and state. Organizations which heretofore had held aloof or had been lukewarm in their support, now began to catch the significance of the widened scope and the change from a county to a state affair and began to offer support. In the twinkling of an eye the status of the festival had changed amazingly. The infant had become a lusty youngster with promise of rapid development and growth.

The first act of the new manager and his executive board, composed of August Fischer, chairman, Allen E. Walker, president of the clearing house, Jay Stull, president of the local Chamber of Commerce, John F. May, Charles F. Lathers, James Thompson, citrus growers, and W. D. Gray, treasurer, was to change the location of the festival from Sixth street to North Third street. An ideal spot to hold such a festival this proved to be, a stretch of four wide city blocks from Avenue D north to Lake Silver boulevard being secured for the erection of the exhibition halls, with 500-feet of fine lake front for grandstand and paraphernalia for water sports and races, and several blocks on an adjoining street for the location of carnival and amusement features. This location provided space for four exhibition halls, containing 50 booths each, a large free act platform and band shell, four smaller buildings for state and national exhibits, and plenty of space to accommodate thousands of visitors at all the events.

Guthrie early outlined the plans for the festival to include 100 booths devoted to citrus exhibits, 50 booths

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BLUE GOOSE NEWS

Monthly News of American Fruit Growers Inc.



Edited by The Growers Service Department

VOLUME 3.—No. 2

ORLANDO, FLORIDA, JANUARY 1, 1929

PAGE 1

BLUE GOOSE INSPIRES A POETIC OUTBURST

Business men are notably inclined to fact, as opposed to poesy, and commission merchants of the bigger sort are just a little harder boiled than is the average big business man. It must therefore require a powerful inspiration to induce a big commission merchant to burst into poesy. The Blue Goose is however sufficient inspiration, as witness the following lines by Mr. Aaron Glick of H. Glick & Co., the well known fruit jobbers of Indianapolis, transmitted to us by the kindness of Thos. C. Osborne, Indianapolis Blue Goose salesman supreme:

The Doctor says eat plenty of fruit;
For health there's nothing better,
So start today—you should obey
This order to the letter.

Begin with an orange at breakfast
Or grapefruit if you wish,
For fruit of any kind at all
Makes an appetizing dish.

An apple a day keeps the Doctor
away;

This is true without a doubt.
So why not eat apples every day
And keep the old Doctor out.

And here's just a little suggestion:
In buying fresh fruit for home use,
If you want the best without ques-
tion,

Be sure to insist on "BLUE GOOSE."
"BLUE GOOSE" is a brand with a
meaning,

A meaning not hard to explain;
For once you give it a trial
A friend to "BLUE GOOSE" you
remain.

The taste and the flavor
Have won public favor,
For none with "BLUE GOOSE"
Can compare.

And when "BLUE GOOSE" is eaten,
There'll be some repeatin'
For it's known as the best
Everywhere.

PACKING HOUSE MEN GATHER IN MEETINGS

Two very important meetings of packing house managers and field representatives of the American Fruit Growers Inc. in Florida were held prior to the first of the year.

The meetings were held at the Angebilt Hotel in Orlando. The first brought together those from Orlando and northward, the second those from territories south of Orlando. The object of holding two meetings rather than one was to reduce the attendance at each meeting to enable each individual to have more time for expression, and thus to facilitate interchange of thought. The groupings brought together those whose problems were most similar.

Mr. R. B. Woolfolk presided at each of the gatherings, with W. M. Scott and Salesmanager C. N. Williams of Orlando also in constant attendance. Each meeting lasted all day with a full and free discussion of matters looking to further improve methods of handling in view of the peculiar problems of the present season; and to further coordinate the relations of the packing houses and the selling forces.

The American Fruit Growers Inc. this season has signed up the largest Florida citrus tonnage in the history of its operations here; and no stone is being left unturned to provide for the adequate and proper handling of so large and important a volume of business. The packing house men were enthusiastic over the support of the growers in their respective sections; and gave every indication of fullest alertness to their responsibilities. A number of improvements in methods of handling are being put into effect, with satisfactory evidence of their success.

Among those participating in these gatherings were: T. S. Kirby, Fort Pierce; H. S. Parkinson, Alva; H. L. Borland and W. T. Dupree, Citra; L. F. Chapman, DeLand; Ike Dixon,

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OUTLOOK SATISFACTORY FOR BALANCE OF SEASON

The first half of the present shipping season was notable for the large volume of orange shipments from all sources in the United States. Compilation of shipments to December 22 reveals that there was shipped 2,300 carloads more oranges from California, and 1,400 carloads more oranges from Florida than for the same period during the preceding season. Figuring California shipments at 412 boxes and Florida at 360 boxes per carload this means that approximately 1,500,000 more boxes of oranges moved into the markets from these combined sources during this time than were shipped in the same period of the season before.

The absorption of this volume of oranges by the markets in the face of troubles with decay, and an overabundance of small sizes in Florida shipments, is held by many to be very significant, particularly as prices steadied and showed stronger to the close. The New York auction market of December 28 the last market day of the year 1928, was the strongest and most satisfactory on the averages realized for Florida fruit since the beginning of Florida shipping.

Western reviews state that the volume of California oranges on track and rolling at the end of the first week in December was the heaviest in the history of the California industry. The very heavy movement from California at least has had the effect of reducing the amount of navel oranges held for future shipments.

Both Florida and California are now experiencing the same handicap of average small sizes so neither district now has any advantage over the other in that respect. The very considerable improvement in the eating quality of Florida oranges, coupled with their arriving in the markets now in sound and satisfactory condition indicates increasingly better re-

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BLUE GOOSE NEWS

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EDITORIAL ROOMS
502 Yowell-Drew Building
ORLANDO, FLORIDA



PACKING HOUSE MEN GATHER IN MEETINGS

Continued from page 1

Fort Ogden; Walter Matthews, Summerfield; A. G. Warn, Haines City; E. G. Youngblood, Lake Jew; J. P. Mace, Lake Helen; Walter Merrill, Lakeland; Lon Martin, Lake Wales; F. R. Stevens, Leesburg; Paul Rogers, Maitland; J. W. Parker, Oakhurst; R. J. Flynn, Odessa; C. H. Crews, Palm Harbor; Ervin Springstead, Palmetto; S. C. Phipps and J. H. Letton, Valrico; Dr. E. B. Lytle, Weirsdale; J. E. Powell, West Frostproof; O. S. Turner, Winter Haven; Clay Binion, C. N. Williams, W. M. Scott and R. B. Woolfolk, Orlando. Illness prevented the presence of H. A. Pollard of Winter Haven, to the regret of the other participants.

OUTLOOK SATISFACTORY FOR BALANCE OF SEASON

Continued from page 1

ception of them from now on from both trade and consumers. The situation with respect to Florida oranges is further strengthened by indications that from this time on there will be far fewer "tramped" or homeless carloads turned into the principal auction markets for final disposition. Prior to Christmas these markets suffered heavily, and price averages were considerably depressed, by reason of having to handle volumes of fruit which was not of auction quality, but which was sent to the auctions because of failure to sell elsewhere.

Grapefruit looks to be in relative

Adv.

ly stronger position than before Christmas. The season of greatest grapefruit consumption over the country is approaching, and with the improved quality and sound condition of the remaining portion of the Florida crop, grapefruit should be taken by the consuming public much more freely. Though the experience of Florida packers indicates that grapefruit crops have picked out generally in excess of the earlier estimates, it would seem that a judicious apportionment of grapefruit shipments over the remainder of the season should result in maintaining average satisfactory price levels.

Considerable tangerines remain to be handled. The outlook for the larger sizes, where not allowed to go dry, seems satisfactory at this writing. Most tangerine growers have been picking for size on shipments previous to Christmas, so that there should be available fruit in the wanted larger sizes now which will still be juicy and appeal to consumers.

The initiation of allotted volume of shipments to the various shippers by the Clearing House is a radical departure for Florida, but there seems abundant warrant for such action. If followed out carefully and accurately, it promises to instill confidence in the northern markets and to put Florida citrus selling generally upon a new and more substantial basis. To faithfully adhere to the respective allotments involves numerous difficulties for the shipping concerns but at the time of this writing all apparently are doing their very best to accommodate themselves to the new order of things.

IMPORTANT MEETING OF SOUTHERN SALESMEN

J. S. Zipfel, district salesmanager of the national organization of the American Fruit Growers Inc. for the South held an important meeting of members of the sales force in Southern territory in Atlanta on January ninth. Representatives and brokers of the AFG over the entire south were assembled for a discussion of ways and means for the further development and stimulation of citrus sales in southern territory for the balance of the Florida season. In addition to members of the active selling force Messrs. W. M. Scott and C. N. Williams from the Orlando offices were present to review the situation, and to aid in planning aggressive measures for the remainder of the season.

The meeting was informative and businesslike; but there was notable confidence manifested by those present, and considerable enthusiasm developed over prospects in sight. Not many years ago citrus sales in the South largely were confined to an abundant distribution of oranges for the Christmas Holidays. In recent years, largely due to intensive selling cultivation, the southern field for Florida citrus fruits has grown very largely and extends over a long season.

F. L. SKELLY CONTINUES SHOWING IMPROVEMENT

To his many friends over Florida the news that Frank L. Skelly is now able to walk to some extent about his room in a Jacksonville hospital after having been confined in bed there for practically a year, will come as most welcome tidings.

His improvement even if extremely slow continues steadily; and gives tremendous encouragement to those of his friends who have been able to keep in intimate touch with his progress. His long, and extremely courageous, fight apparently is slowly winning over the case of arthritis which has held him in grip for so many months.

FREE ADVERTISING BY MEDICINE MANUFACTURER

"Eat plenty of citrus fruits," is the advice to the public in the larger northern cities by the manufacturers of an aspirin tablet to flu sufferers, as given in extensive newspaper advertisements.

Of course, the utility of the aspirin tablet in question in flu cases is indicated by the makers; but the "eat plenty of citrus fruits" is given equal prominence. In as much as this advertising is paid for wholly by the medicine concern the sincerity of its advice apropos of consuming citrus will not be questioned by the growers.

"Just think, a single Mormon would have as many as ten wives."

"Lord, how many did the married ones have?"—N. Y. Medley.

In order to jingle coins in your pocket you've got to shake a leg.—College Humor.



OF the wideawake distributors who find it profitable to specialize in the handling of Blue Goose Fruits, Vetter Bros. of Louisville, Kentucky, are an excellent example. Concerning them the Louisville Herald-Post recently said:

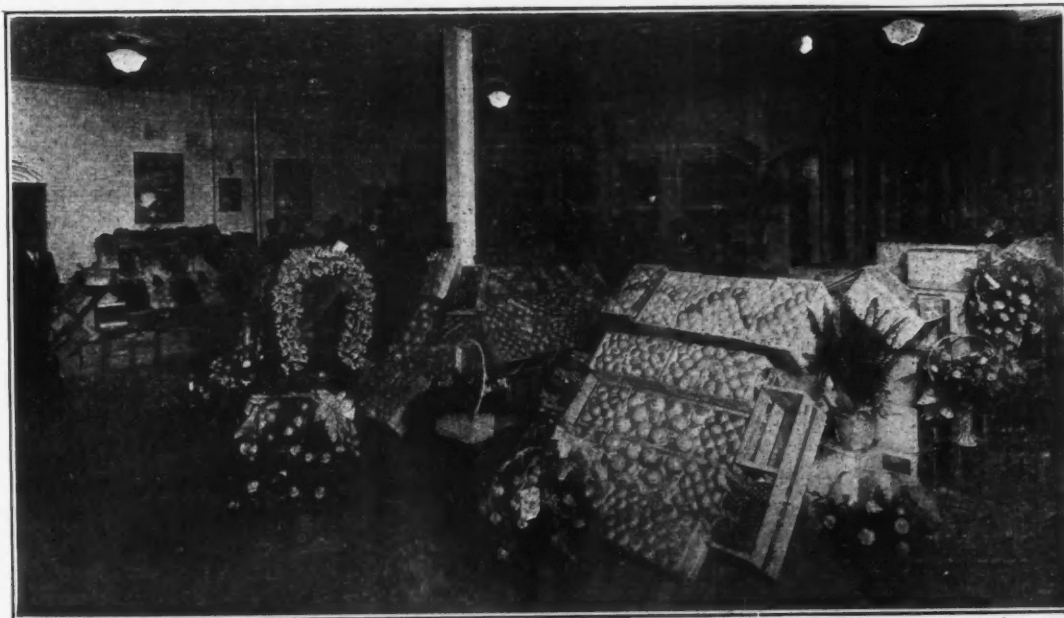
"Organized in October, 1915, the firm of Vetter Bros., wholesale produce dealers, has grown and expanded during these thirteen years until today it is one of the largest concerns of its kind in Louisville. The firm was organized by three brothers, Louis R. Vetter, Joseph F. Vetter and Julius A. Vetter, and for years was engaged in business at 120 East Jefferson street.

"During the years, business of the firm continued to grow until the brothers found it necessary to enlarge the quarters. A new site was selected and a modern new building erected at 104-110 East Jefferson St. This building was completed early this year and opened for business on January 16.

"The firm of Vetter Bros. handles everything in the line of fruits and vegetables. The firm features the Blue Goose brand of fruits and is exclusive dealer in the Blue Goose brand of grapefruit.

"A large stock of fruits and vegetables is carried by Vetter Bros. all the time. The firm sells strictly at wholesale and supplies dealers in Louisville and other cities and towns in Kentucky and adjoining states.

"The firm has its own refrigerating plant, which insures nice fresh vegetables and fruits the year around. The firm employs forty-eight men and women and operates a fleet of ten trucks in the delivery of goods." Below: Photograph made on the occasion of the recent opening of their new establishment.



UNIFORMLY



THE BEST

Blue Goose First On The Radio

Advertising of Florida citrus fruits to the consuming public via a national hook-up of one of the great radio chains was initiated by the American Fruit Growers Inc. last autumn.

It continues a most important features upon the Red Network on Friday morning of each week at 10:15, a time considered most appropriate to obtain the greatest attention from the largest number of housewives in and about the great consuming centers.

The attention obtained, as evidenced by the volume of written requests for the new Blue Goose booklet from thousands of hearers, exceeds the best expectations when the experiment was initiated.

First in many progressive movements for the stimulation of markets for the products it handles, the American Fruit Growers Inc. now must be credited with being the first marketing agency handling Florida citrus fruits to take advantage of this newest and most modern method of obtaining the attention and interest of the public.

American Fruit Growers Inc.

Orlando, Florida

DEPENDABLE



QUALITY

IMPRESSIONS

By The Impressionist

Our old friend Chester Merrill of Leesburg, sub-exchange manager for the Florida Citrus Exchange, with his usual alertness has started something by advocating raising the maturity tests. He sees that these are not sufficiently high to guarantee that degree of palatability and taste which makes consumers come back quickly for more and thus creates profitable markets for the growers. Chester is right; but our impression is that it will take more than a resolution to do it. Firstly, only exercise of police power permits either state or federal government to interfere in such matters, and the only legal excuse for such interference is that fruit must be unfit for human consumption. Whether or not fruit tastes bad, or its sale adversely affects market prices is not warrant at law for governmental interference. Therefore, any law capable of standing the tests of the courts must be based on fruit being deleterious to humans when and if consumed. The present maturity standards are the result of some old dietary tests made at an eastern university years ago; and are sustained by the courts. In our humble opinion these tests, even though accepted by the courts, were incomplete and inconclusive. The experiments were conducted upon adults; and it has long been our theory that citrus fruits could pass these tests and still prove deleterious to infants and small children. The courts, however, pay small attention to theories. We in Florida know by this time that such fruit has a decidedly deleterious effect upon the pocket-books of the growers. Chester Merrill is dead right in that respect. What can we do about it? Easy enough: Let's take a few thousand dollars of Clearing House funds and finance a series of experiments at Cornell or Harvard, or some similarly equipped institution, aimed at the physical welfare of infants and children. It seems reasonable to believe the figures will be marked up a point or two, in which event only palatable, tasty fruit could move into U. S. commerce from any citrus growing section wherever located.

C. S. (Doc) Cunningham of South-

ern Fruit Distributors Inc. and ourselves, being interested and official figures being wholly lacking, endeavored from the start of this season to tabulate roughly the shipments of Parson Brown oranges from Florida. It is our guess that to November first there had been shipped, duly labeled as "Parson Browns," more than double the state's total production of actual Parson Browns, and still the "Parson Brown" shipments rolled forward merrily. At Thanksgiving time it was our guess that approximately four times Florida's actual total production of true Parson Brown oranges had gone forward under "Parson Brown" stamps or labels. Our impression is that this is unfortunate for the industry; and that the Food Inspection Service of the U. S. D. A. has the legal power to handle effectively such instances of misbranding, and might very well do so.

Inglis, C. S.
Another good citrus man has passed out of the Florida circle. Just before Christmas, C. S. (Charlie) Fugazzi of Cincinnati and Clearwater passed away at his winter home in the latter place, at the age of fifty-three. Six months ago he suffered a nervous breakdown from which he was unable to rally. With his brother John, who survives, he operated one of the big commission houses of Cincinnati, where also he was a very large owner of improved real estate. He was also a director of, and treasurer of, the United Fruit Auction Co. at that point, and with his brother was a very considerable owner of Florida citrus properties, peach orchards in Georgia and plum and strawberry properties in Tennessee. Charlie Fugazzi was extremely loyal to the Florida industry, and at all times willing to work with others for its advancement. A strong character, and very positive in his convictions, Charlie Fugazzi will be missed greatly in Florida circles.

"Brother Bill's" comments from time to time in The Growers' Own Page attract a lot of attention, and we receive numerous inquiries concerning his identity. As he prefers to keep that a secret we are not at liberty to reveal it, though simple

modesty is responsible for his retiring policy. He is something of a theorist, true, but he is a darned hardheaded and very practical citrus grower also. He successfully operates some quite successful grove properties; but keeps his mind open as well as his pores. Our observations indicate that he takes himself the medicines he prescribes, and that he, and his groves, thrive on them. He is short thickset, wears glasses, markets his fruit through the Florida Citrus Exchange and toes in slightly on the left foot. That will have to be sufficient identification.

C. G. Bouis of Fort Meade, owner of perhaps the foremost investigative mind among Florida citrus growers, reads "Brother Bill" very carefully. Some day at some citrus gathering we hope to get them together in a crowd, without either being aware of the other's identity, and then we anticipate being auditor at eight or fifteen hours of most interesting discussions.

See you at the Florida Orange Festival at Winter Haven! Note that the erstwhile Polk County Orange Festival has now become the Florida Orange Festival and is statewide in scope and interest. That is fit and proper. If California can have a big orange show we in Florida ought to be able to do so. It is true California has two, but one is for navels and the other for Valencias and they are held at different seasons. Winter Haven is easily reached now from both coasts and from north and south; and having shown a willingness to unlimber and put work and money into the undertaking, our impression is that we may well back up J. B. Guthrie and the Winter Haven crowd to the best of our respective abilities.

And now C. McD. (Champ) Davis has been elevated by the Atlantic Coast Line R. R. to be vice-president in charge of traffic. Florida shippers, generally speaking, approve quite heartily. Our own impression is that Florida perishable shipping interests now may look forward to a more sympathetic and understanding handling

Continued on page 30

Citrus Growers Will The Services of Che

(Based Upon)

The Trade Says:

"We hope you will keep this fruit coming as this market likes your brand."

—Says a Cleveland firm.

"We wish to take this opportunity to compliment you upon the high standard of your pack, which equals if not excels anything coming on the market."

—Says a Philadelphia firm.

(These letters on file in our office)

This advertisement appeared originally in the Orlando Reporter-Star being addressed to the growers of that vicinity by the Chester C. Fosgate Co. Inc. Installation of the now widely acclaimed Brogdex System is handled by, and inquiries should be addressed to—

Florida Brogdex Distributors Inc.

B. C. Skinner, President
Dunedin, Florida

By the use of the Brogdex ap markets in sound conditionreat ment. It checks blue mold the a gloss and seals the pores his shrinkage. It is natural thayer ment because its appearand it arrived at the market in son wi

On Saturday, December 1st, we t prepared them for shipment witho ay v ularly cloudy, murky day and com unf packing. The car was sent to the t an on the following Thursday, Decem t sho car arrived in absolutely sound co read by the trade as being unusually w CE V WAS USED IN THE SHIPMENT. d \$7 car besides the increased revenue entic This is just an example of what ing using our service. There is no ext save every grower using it. THEIR FR TH IN SOUND CONDITION WITHOUT AND

Chester C.

Offices:
State Bank Bldg.
Orlando

le \$42,000.00 By Using ne C. Fosgate Co., Inc.

Updated Volume)

*Not Necessary--The Grower
Per Box--There Is No Decay*

index appearance of citrus fruit is greatly improved and it arrives at the
treatment has been tested and approved by the United States govern-
hold the mist of boiling paraffin through which the fruit next passes gives it
ores this insures the keeping qualities, improves appearance and prevents
l thayers are showing a preference for fruit that has received this treat-
and its keeping qualities have been demonstrated by the fact that it has
in so without being iced. They recognize a better product.

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CELLENT APPEARANCE, and is most desirable in every way.

On December 8 we shipped a car of tangerines which was due to ar-
rive and be sold in Pittsburgh on the following Thursday, December
13th. For certain reasons it was delayed and didn't arrive then or the
next day which was Friday. There are no sales on Saturdays or Sun-
days and this car was held until the following Monday. At no time
was any ice used in the car. On Monday, 10 days after packing, the
car was sold for a good price and showed no signs of decay. We can
cite you many cases where buyers have shown their preference for
our fruit by paying higher prices for it. It will pay you to investigate
the Brodrex treatment. We make no charge for its use. It is a part
of our service.

es C. Fosgate Co., INC.

ckers and Shippers of Citrus Fruit

OUR BRANDS:

Ace High
Fidelity
Criterion

Plant:
Forest City
Phone Winter Park 3500

Increased Use of Motor Trucks in Marketing Farm Produce

The marked increase in the use of motor trucks for hauling farm produce direct from farms to markets is shown in a survey in New York City which brought out that from twenty to thirty per cent of the supply of leading fruits on the New York market is hauled into the city by motor truck.

This survey, made by the Bureau of Agricultural Economics, United States Department of Agriculture in cooperation with the New York Food Marketing Research Council shows that for about three months in mid-season, New York gets nearly one-third its peach supply by truck; one-fourth its tomatoes, and one-fifth its apples. Sometimes during the busy season more than one-half the New Jersey produce supply moves in trucks.

The tendency to change from the horse-drawn wagon or the railroad car to the motor truck has been going on for a dozen years. The New York dealers wanted to know just how much produce was coming by truck and about 45 of them agreed to give by telephone each morning the number of packages of each product received by truck, according to the State of origin.

The investigation was limited to five important lines of produce; peaches, cantaloupes, tomatoes, apples and peppers. The reporting started July 20 when truck shipments were beginning to move in quantity, and continued through the peak period to October 22, when motor truck shipments had dwindled to small quantities. Information gathered in this way does not give the complete total of receipts coming by motor truck into the New York area. Produce arrives by this means at the Newark, Harlem, Gansevoort, and Wallabout markets, as well as the several farmers' markets, but it appears that the bulk of New Jersey motor truck shipments distributed in New York City has been accounted for.

It was found that during the period of investigation the five products reported were shipped by motor truck to New York from points as distant as Virginia, Maryland, and Delaware, as well as from the nearby sections of New Jersey, Pennsylvania, Long Island (N.Y.) and Connecticut, excepting cantaloupes from Virginia,

Maryland and Delaware, the New Jersey motor truck receipts so far exceeded those from other States that the latter appeared insignificant.

It was expected that motor truck receipts from New Jersey would be large but it is surprising to learn that in the period reported the receipts of peaches and apples by truck far exceeded rail receipts from New Jersey, amounting to 75 per cent and 85 per cent respectively of the combined New Jersey truck and rail deliveries. During one week at the height of the season truck receipts from New Jersey were 83 per cent and 91 per cent respectively of the deliveries in New York from that State. During a part of the tomato season more than half of the New Jersey shipments arrived by truck and for the entire period reported they were 45 per cent of the total New Jersey tomato deliveries. For New Jersey peppers the ratio was much smaller. Only 10 per cent of the total receipts of peppers was brought by motor truck. Cantaloupes arrived by truck from Maryland, Delaware and New Jersey, but railroads carried the bulk of this product from each of the States.

The relative importance of truck receipts may be best estimated by comparison with the total motor truck and rail receipts from all States. Although a certain section may be shipping exclusively by truck, its total shipments to market may be so small compared with arrivals by rail from other points that its influence is not very great. Since for peaches, apples, tomatoes and peppers New Jersey is practically the source of the entire motor truck receipts of New York, a comparison of New Jersey with the total from all States gives an indication of the relative importance of motor truck supplies.

Thirty per cent of all peaches arriving at New York during the period reported came by motor truck. Twenty-five per cent of the tomatoes, 20 per cent of the apples and 9 per cent of the peppers also arrived in this way.

Taking a single week during the height of the season, the truck receipts of peaches were 58 per cent of all peach receipts, apples 78 per cent, tomatoes 52 per cent, and peppers 16 per cent.

Some of the wholesale dealers do not like this tendency of change to motor truck service because they can not hold the truck operator liable for injury to produce during the trip to market. In the case of railroad shipments the dealers can and do bring many claims for damage against railroad companies. Something may have to be done to provide insurance protection or direct liability on truck loads. Such protection in one way or another adds something to the costs of the trucking service. No other drawbacks from the point of view of the dealer are mentioned.

The fact that the bulk of the perishable produce from New Jersey comes to market by truck may be evidence that the shipper favors the plan. It is claimed that motor trucking to market helps the producers who are outside the old market gardening region, giving them the advantages of prompt delivery wherever the load is wanted and without delay, rehandling or extra charges. The driver may be his own salesman—at least he has some responsibility for good care and safe handling. The load may be composed of cherries, peaches, or early pears in open baskets and still be delivered without loss and perhaps sold at high prices as belonging to the "Fancy near-by" class of produce.

Many dealers have their own trucks which they take to the producing section and do their buying direct. This plan suits the grower rather well because he sells for cash and need have no more trouble about the matter. Sometimes other local dealers complain and the country markets are upset by this direct buying. The truck must start promptly with a full load, and the need of a quickly gathered cargo may result in slightly higher prices being paid; but all that somehow fails to worry the producer who has enjoyed dealing with a buyer too busy to dicker long about the price.

As for the condition of the trucked produce, there is some discussion about the effect on soft fruits, yet it is claimed that strawberries trucked to market hold their condition better and longer than those shipped in iced cars, although the iced berries will look better for the first four or five hours. The jarring of the fruit

Continued on page 30



TEXIDE

A petroleum base insecticide designed especially to meet the needs of the citrus grower.

TEXIDE is more than a pest killer. TEXIDE is crop insurance because it not only prevents reinfestation over long periods of time, but stimulates the general health of the tree. Write for information or ask any Texaco Agent.

Correspondence is invited

THE TEXAS COMPANY

Texaco Petroleum Products

District Office, Jacksonville, Florida

Texaco Agents located in citrus centers:

Orlando	Clermont	Bartow	Fort Myers
Haines City	Lakeland	Leesburg	Kissimmee
Lake Wales	Tarpon Springs	Titusville	Cocoa
Avon Park	Tampa	DeLand	Clearwater
Eustis	Fort Pierce	Arcadia	St. Petersburg
	Dade City		

"Please Say You Saw It In The Citrus Industry"

Agricultural
Twenty-four *Contests*

Garden Contests For 1929 Ready To Be Launched

The first all-year garden contest ever conducted in Florida came to a close on December 31, and a new one began the next day. The people of the state liked the idea of all-year gardens, so the contest will be carried on along the same lines as last year.

Miss Isabelle Thursby, foods and marketing agent for the State College for Women, is in charge of the contest. She is assisted by home demonstration agents all over the state. An attractive feature of the contest is that everyone wins. Those having the best gardens get the prizes, and the others get many good fresh vegetables through the year.

This contest calls for eating vegetables as well as growing them. The ideal set up by Miss Thursby is at least two vegetables served every day of the year. One should be a leafy plant such as lettuce or spinach, and the other should be a root, such as carrots or turnips. Even the lowly onion is included in the list of vegetables which may be used in the contest.

The contest begins on the first day of January and ends the last day of December, 1929. Each participant is given a record card on which is listed the different vegetables. On this card the gardener makes a record of the number of times each vegetable is used during the month. This is a woman's affair and is open to every member of the home demonstration clubs in the state. The competition is between counties, as well as between individuals. It is necessary for 15 members to enroll for the county to be represented.

Attractive prizes will be awarded to the high scoring counties in each of the three districts of the state. The state will be divided according to the home demonstration districts—North, East, and South Florida. The prizes will consist mostly of high grade seeds and nursery stocks.

The contest is being put on in an effort to stimulate the growing of vegetables twelve months of the year in Florida. The increased health and efficiency which result from eating an abundance of green vegetables is the goal to which the extension agents are working.

The making of marmalade was started in China. Sour oranges were used in making the first marmalade.

Citrus Aphid

THE CITRUS INDUSTRY Early Transplanting Of Citrus Trees Will Prevent Aphid Injury

Careful observation has convinced J. R. Watson, entomologist of the Florida Experiment Station, that citrus trees transplanted during January will escape injury from aphids when they put out their first new growth.

The trees that are transplanted early will very likely not be attacked even though there are older trees nearby which are infested. Trees transplanted to the same field later in the spring will not have this protection, and growers are expected to take advantage of this fact by transplanting citrus trees as early as possible.

Answering an inquiry by a grower, Mr. Watson says on this subject: "Our experience last year was that aphids did not attack a transplanted tree, provided it is not put out too late in the spring. This was one of the great surprises of the past year. I personally put out several hundred tangerines in December a year ago and I expected a first class fight, but to my surprise not an aphid attacked them, although there were plenty of aphids in the neighborhood on older trees. Observations throughout the state showed that this condition was general. Aphids did not attack the young sprouts of trees put out during December and January. Some of those trees transplanted later in the spring, however, were attacked."

Mr. Watson is at a loss to account for the apparent immunity of young trees transplanted during December and January, but thinks that growers should take advantage of this immunity and transplant early. He adds that early transplanting is advisable for other reasons also.

GRAPEFRUIT PEEL IS USED AS FERTILIZER

Grapefruit Peel Product
A sample of dried grapefruit peel recently sent to the chemistry department of the Experiment Station for analysis contained almost one percent of nitrogen, one and a half percent potash and a small amount of phosphoric acid.

This material has been used for fertilizer in a few instances this fall, and its analysis indicates that it might be worth hauling to groves when it can be obtained for little or no cash outlay.

Analyses of wet grapefruit peel show that this material contains

"Please Say You Saw It In The Citrus Industry"

January, 1929

about one-half of one percent nitrogen, a small amount of phosphoric acid and one and one-third percent potash.

HUGE DIVIDENDS FROM

AGRICULTURAL RESEARCH

Agricultural Research
Research work in agriculture in the United States if measured by dollars is costing about \$20,000,000 a year, and the returns are now amounting to more each year than the entire expenditure which has been made for all the work of the department and all the agricultural colleges in the country from their foundation, dating back in some cases to shortly after the Civil War, up to the present time. Dr. A. F. Woods, Director of Scientific Work in the United States Department of Agriculture, made this statement on November 28 in his address on "Education and Research in the Relation to Agriculture," delivered at the installation of Dr. John R. Turner as president of the University of West Virginia at Morgantown.

Twelve club girls and boys from Florida were given trips to the International Club Congress held in connection with the International Livestock Show at Chicago this year. 4-H club work pays in more ways than one.

A five-acre field of corn in Washington County gave an average yield of 50.5 bushels per acre. The corn was grown by a member of the five-acre corn contest under the direction of Gus York, county agent.

CITRUS EXPERT and landscape gardener desires superintendency of larger grove or estate. Address, P. O. Box 2072, Sarasota, Florida.



Beautify Your Home Grounds

Visit us at Oneco, or write for free advisory service. Over 45 years experience is yours for the asking. Free catalog on request.

Reasoner Brothers'
ROYAL PALM NURSERIES
Oneco, Florida

COMPARE

the

Crop QUALITY

THE little additional cost of Mapes Manures is returned to you many times over in crops of better quality which bring better prices.

Since 1847, it has been a guiding principle in the making of Mapes Manures that the crop can tell the value of fertilizing materials better than the chemical laboratory. We go to the crop; we ask it what materials it likes best; we put these materials into Mapes Manures.

Two fertilizers of the same analysis may give widely different results because of the difference in materials from which they are compounded. Mapes results are so remarkable, so outstanding, so evident, that you have only to see them to be convinced. Mapes Manures "COST LITTLE MORE—WORTH MUCH MORE." They are first made right, then priced as low as possible.

Try Mapes this year. Compare the results—yield, quality, profits—with the results from any other fertilizer you can buy.

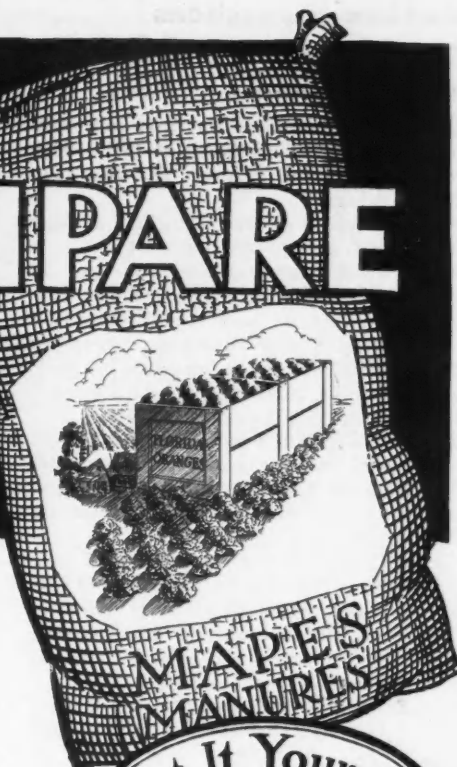
The Mapes System of Fertilization

The Mapes System of Fertilization is being followed by many of the most successful citrus growers in Florida. It is based on many years of experience. It is simple and easy to follow. Under this system you feed your trees at the right time, with the right fertilizer and in the right quantity for maximum economical and profitable production. One of the very important advantages of Mapes Manures is that they may be applied liberally, without danger of tree injury, because they are made from the choicest sources of plant food obtainable.

Write today for complete information about Mapes Fertilizers and the Mapes System of Fertilization. Also, be sure to get our new series of Citrus Leaflets. They're free for the asking. Use the coupon below.

The Mapes Formula & Peruvian Guano Co.

270 Madison Ave., New York, N. Y.
Hamilton Woodruff, Branch Mgr. Jacksonville, Fla



Test It Yourself
for
YIELD·QUALITY
PROFITS

.....Be sure to get this new series of leaflets.....

We are issuing a new series of leaflets which will tell you each month about the care and fertilization of your grove. These leaflets are designed to help you to secure greater production and greater profits from your grove. They are free for the asking. Just fill out the coupon below and mail today.

The Mapes Formula & Peruvian Guano Co.,
Dept. C-3, Jacksonville, Fla.

Please add my name to your mailing list so that I will receive the new leaflets on Citrus Culture. Also send me complete information about Mapes Manures. It is understood this does not obligate me in any manner.

My grove consists of _____ bearing trees and _____ young trees. My grove is located at _____

My name is _____

My address is _____

MAPES

Manures

cost little more --- worth much more

"Please Say You Saw It In The Citrus Industry"

Specialists Give Suggestions For Work in January

Following are general suggestions for farm and grove work in January, prepared by specialists at the College of Agriculture, the Experiment Station, and the Agricultural Extension Division.

General.—Plan a cropping system to include at least three or four crops which have been found most profitable in your community. Grow sufficient green feed, corn, and legumes for your livestock. Buy only high grade fertilizers and cooperatively. Plan to have something to sell every month. Subscribe for your home-town newspaper and a good farm journal. Make an inventory of your farm. Start keeping records. Make your record keeping a part of each day's routine. Fumigate for corn weevil.

Dairy and Beef.—In northern counties, scatter 5 to 10 pounds of lespedeza seed to the acre over pasture and let cattle tramp in. Get grass seed for permanent pasture. Feed beef cattle corn stover and silage, and let them run on velvet bean fields.

Grove and Orchard.—Set grove trees, water, and bank for cold protection. Prune out dead wood. Irrigate if dry. Watch for rust mites. Destroy citrus aphids if found on new growth. If scab is bad on grapefruit and satsuma, spray with 3-3-50 Bordeaux plus 1 percent oil or 1-30 lime sulphur just before new growth appears.

Garden and Truck.—Spray cabbage with lead arsenate and soap for worms (1 pound arsenate powder, 6 pounds soap, 50 gallons water). Plant a few double rows of sweet corn and cowpeas in tomato fields as a trap crop for fruit worms. Plant radishes, English peas, Brussels sprouts, collards and mustard. Start seedbeds of tomatoes eggplants and peppers. Treat truck seed with 1:1,000 corrosive sublimate.

Poultry.—Have breeding pens ready. Exhibit birds at poultry shows. Grow healthy chicks.

Boys and Girls.—Enroll for club work. Boys, pick out your club acre and get it in shape; secure good seed and be ready to plant.

In the Home.—Make a family household budget. Make plans for a well-balanced all-the-year diet for the family, a garden of fresh vegetables, can the surplus, raising enough poultry to supply the family's needs, can sausage, meats, etc. Plant ornamental shrubs, trees, and vines. Observe tree planting day at school-house. Provide a quart of milk a day for each child and a pint a day for each adult in the family.

Corn grown after hairy vetch at the Experiment Station this year gave a yield of 23 bushels per acre, while a check plot nearby gave a yield of nine bushels. The check plot was seeded to oats last fall.

Are you interested in growing bulbs? The Agricultural Extension Division at Gainesville has a new bulletin on the subject. It is well worth reading.

For satisfactory drainage with tile there should be a fall of at least one inch in each hundred feet. A greater fall will likely be more satisfactory.

One of the most popular raspberries in Florida now is the Van Fleet. It is one of the newer hybrids and seems to do well in this state, although it has not been tested over a long period.

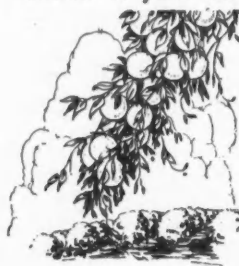


"They Run True to Form

OCCASIONALLY a "selling plater" may come through unexpectedly. But not often. The thoroughbreds are the only dependable horses—they are the ones that invariably run true to form.

So it is with citrus nursery stock. You can't afford to "place your money" on uncertain trees; there's no need to. You can invest in Glen-Grown trees and know in advance the quality of every single tree! Our catalog (copy free on request) gives the complete history of each fruit—and every one of our trees is certified as to type and guaranteed as to quality!

Plant the right stock—plant citrus stock suited to your soil and the location of your grove. Let our staff of experienced nurserymen confer with you, either in person or via the mail. A request involves no obligation on your part.



Glen Saint Mary Nurseries Co.

WINTER HAVEN

ORLANDO

TAMPA

"GLEN TREES ARE GUARANTEED"

Grove Heating Is Job That Requires Correct Equipment

Successful grove heating is a job that calls for a lot of care and the use of correct equipment, stated Dr. A. F. Camp, horticulturist of the Florida Experiment Station in a radio talk over WRUF. It is perhaps true that more failures in grove heating have resulted from improper methods than have occurred from anything fundamentally wrong with the heaters, he said.

Many growers who have purchased heaters have failed to secure plenty of good thermometers adapted to grove heating work, and many others have failed to mount their thermometers in the right way, Dr. Camp said. The best type thermometer for this use is that which has a minimum recording device. It is important that it be accurate at temperatures below 32 degrees also.

In mounting thermometers in the grove it is important to protect them from direct exposure to the sky, as this is likely to cause them to register a lower temperature than the air temperature due to losses of heat by radiation. A suitable shelter may be made for the mounting by constructing a box with top and bottom but no sides.

Thermometers are the guide to proper grove heating and should be read frequently and the readings utilized in adjusting the heaters. In reading the thermometers an electric light should be used instead of matches to prevent raising the temperature. The reading should be made as quickly as possible to prevent changes in temperature due to heat from hands or breath of workman.

Oil heaters are more quickly lighted and brought to a rapid rate of burning than either coke or wood, the speaker said. This fact should be remembered if either of the latter types are used. Where severe cold is expected it is best to light most of the heaters immediately and allow them to burn slowly rather than attempting to hold the temperature with a few heaters burning at a high rate.

For the benefit of beginners, Dr. Camp gave a few warnings to be followed in operating heaters. The lighting torch commonly used has a brass gauze in the spout to prevent back firing and in no case should this be removed, as it might result in the explosion of the torch. Most oil heat-

ers are difficult to light the first time and frequently the firing of the low stack type of heater for the first time may be simplified by placing a small piece of light wood in the stack when it is first filled.

Above all, Dr. Camp said, grove owners should do a lot of figuring and get their help organized. Heaters call for thermometers, fuel, good judgment and eternal vigilance.

BROGDEX COMPANY SEEKS TO RESTRAIN CALIFORNIA FRUIT GROWERS EXCHANGE

On December 1, 1928, a bill of complaint was filed in office of the Clerk of the District Court of the United States for the Eastern District of Pennsylvania, at Philadelphia, in which the Brogdex Company is the plaintiff, against the California Fruit Growers Exchange, defendant.

The case was docketed as No. 4745, September term, 1928. By a stipulation filed December 24, the Defendant's time for filing answer was extended to February 1, 1929.

This case grows out of the claim by the Brogdex Company, originators and patentees of the Brogdex and Brogdite methods of treating citrus and other fruits to prevent decay in shipment, that their rights were being infringed by the California Fruit Growers Exchange.

OUTLOOK REPORT WILL BE ISSUED JANUARY 28

The outlook for American agriculture in both domestic and foreign markets during 1929 will be reported on January 28 by the bureau of agricultural economics, United States Department of Agriculture, in cooperation with other bureaus of the department.

The report will be issued following a conference of agricultural economists and extension workers in Washington. Florida will be represented by A. P. Spencer, vice director of the Agricultural Extension Division, and upon his return Mr. Spencer will summarize the recommendations in a radio talk over WRUF, the state station located in Gainesville.

The purpose of the outlook report is to aid farmers in adjusting production to meet market demands, there-

by helping to avoid surpluses that cause undue losses. All the department's facilities for collecting and interpreting economic information relating to agriculture are being utilized in preparation for the conference.

Rust is costing American farmers 150 million dollars each year. Store your machinery this winter.

PAINTER'S

Simon Pure Citrus

and

Gem Farm Crop FERTILIZERS

ARE

"Time Tried and Crop Tested"

Our Brands are the Acknowledged Standard by which Growers of Florida have judged all Fertilizers for nearly 40 years.

"Giving all we can for what we get instead of getting all we can for what we give" is the policy of

THE E. O. PAINTER FERTILIZER CO.

Jacksonville, Florida

For MELANOSE AND SCALE

Apply VOLCK-Bordeaux for melanose. Follow later with VOLCK alone for scale control. It is the first, and only long-proven "white-neutral oil" spray, and combines extremely high killing effectiveness with an extremely wide margin of safety for fruit and tree. Talk with your nearest dealer.

CALIFORNIA SPRAY-CHEMICAL COMPANY
O. R. Blois, District Sales Mgr.
61 W. Jefferson St., Orlando, Fla.

VOLCK

The Scientific Insecticide

4-H Clubs

The 4-H Clubs

Few better guarantees of the future well-being of agriculture and, indeed, of all industry, could well be imagined than the fact that six hundred thousand boys and girls, the men and women of tomorrow, are today enthusiastically learning, and actively demonstrating to their parents and their neighbors, how to make farm life prosperous and contented.

These boys and girls, who will play an increasingly important part in American agriculture, are members of the "4-H Clubs," organized by the Extension Departments of the States and the Federal Department of Agriculture. These clubs "take their name from their emblem, which is a four-leaf clover with an H on each leaf. These H's stand for the training of the head to think clearly, the hands to execute the thoughts of the head, the heart to sympathize and feel for others, and the health for better living. Their motto is 'To Make the Best Better'."

The boys and girls in a county or community who are interested in any particular crop or in any other phase of farm life are organized into a club. There are corn clubs, cotton clubs, poultry clubs, calf clubs, pig clubs and many others, while for the girls there are cooking clubs, dress-making clubs and the like. Girls are eligible to any club and many are prize winning members of clubs in which they compete with boys.

Trained adult leaders give each club member advice about every detail of the activity in which he or she is interested, and the work of each member is used as a demonstration to other boys and girls and to older farmers. Almost countless instances are known in which the parents of club members have been led to the adoption of modern methods of production and marketing by the success of their sons and daughters.

No "farm-relief" measure that has ever been conceived can hope to accomplish what the 4-H Clubs are now actually doing to make farming profitable, and to make rural life so attractive that it will keep the highest types of boys and girls on the farm.

In 1927 the practice of providing an annual National 4-H Club Camp at Washington was inaugurated. The purpose of this camp was to "bring together the outstanding of these club members and to give them an opportunity to interchange ideas that they might give the young people in

their communities more effective leadership. The program was designed to develop leadership, recreation and citizenship." The boys and girls who attended the meeting were selected by the Extension Services of the States from those club members who had made the best records in their respective club activities.

Believing that the 4-H Club work is one of the most valuable and successful educational movements in the history of the country, the Atlantic Coast Line this year offered to pay the entire expense of the camp trip for one boy and one girl from each of the States of Virginia, North and South Carolina, Georgia, Florida and Alabama, provided the selected delegates lived in counties served by the Coast Line.

Lucy Blake of Willard, N. C., Elizabeth Burch of Hinesville, Ga., Laura Case of Pine Castle, Fla., and Hoyt English of Plant City, Fla., were the winners of the trip. Their enthusiastic accounts of what they saw and learned leave no doubt of the benefits and value of the National 4-H Club Camp.

The Atlantic Coast Line will carry out the same plan of paying the expenses of delegates to the National 4-H Club Camp in 1929, and hopes that it will have the pleasure of playing host to a boy and a girl from every State it serves.—Timely R. R. Topics.

DR. NEWELL HONORED BY HIS ALMA MATER

Dr. Wilmon Newell, dean of the College of Agriculture, director of the Experiment Station and the Agricultural Extension Division, has just been notified of his appointment as an alumni visitor to the department of zoology and entomology at the Iowa State College.

A letter from President R. M. Hughes to Dr. Newell states that it is the hope of the officials at Ames to have members of this committee visit the institution as often as possible and advise with department heads at any time.

There are four other members of the committee on which Dr. Newell is serving. Among the number is Dr. E. D. Ball, who is now director of the Experiment Station at the University of Arizona, but who was a member of the staff of the Florida Experiment Station until a few months ago.

Enemies of bees include mice, ants, skunks, dragonflies, and wax moths.

"Please Say You Saw It In The Citrus Industry"



FERTILIZERS

that produce
money-making
results bear
the

A & G BRAND

Every year the demand for A.&G. Brand Fertilizers increases. Many of the largest co-operative agricultural organizations have standardized on the proven formulas bearing the A. & G. Brand. Any fertilizer is better than none—but tests over many years have shown that your fertilizer investment will make more money for you if you insist on A.&G. Fertilizers. Write for our price list No. 60. It contains scientific formulas for every fertilizer need—formulas worked out in our own laboratories and proven money-makers in actual use on hundreds of farms throughout the South. Write us today.

Patagonian Bird Guano
carried in stock —
also Genuine Peruvian
Guano. Prices on request.

Atlantic & Gulf Fertilizer Co.

C. Nash Reid, President
Jacksonville, Florida



January, 1929

Auchter, Eugene C. Dr.

**DR. EUGENE C. AUCHTER TO
HEAD NEW HORTICULTURAL
OFFICE IN DEPARTMENT OF
AGRICULTURE**

Dr. Eugene C. Auchter of the University of Maryland has been appointed Principal Horticulturist in the United States Department of Agriculture to take charge of the newly created Office of Horticultural Crops and Diseases, it was announced today by Dr. W. A. Taylor, chief of the Bureau of Plant Industry. He took up his new duties November 16.

Doctor Auchter was born and raised on a large fruit, vegetable and flower farm in western New York, and is a practical horticulturist, having owned and operated an extensive orchard for a number of years until two years ago. For the last 10 years he has been connected with the University of Maryland as head of the Department of Horticulture and in charge of teaching, research, and extension in horticultural work for the State. He is a graduate of Cornell University, having received the degree of B. S. in Horticulture there in 1912, his M. S. degree in 1918, and the Ph. D. degree in 1923. He is also author of many technical papers on various phases of horticulture, and jointly with Director H. B. Knapp, is author of "Orchard and Small Fruit Culture."

As Principal Horticulturist in the Bureau of Plant Industry, Doctor Auchter will assume general supervision not only of the vegetable gardening, pomological, and related lines of the present Office of Horticulture, but also of the physiological project of the Office of Plant Geography and Physiology, as well as the work of the Pathological Laboratory and of the Office of Vegetable and Forage Diseases, and the entire Office of Fruit Diseases and the Office of Crop Physiology and Breeding.

Grouping these related offices under one head, it is believed, will facilitate the cooperative research upon the many complicated problems of horticulture, not only among the specialists of the new organization but also with the specialists of the State agricultural experiment stations and of the horticultural industries. The total budget for the new organization is approximately one million dollars annually.

At the county contest held recently in Holmes County one woman exhibited 26 varieties of fresh vegetables from her fall garden.

THE CITRUS INDUSTRY

Thirty pints and 35 half pints of milk are delivered at the Niceville school each day at noon for the use of school children.

Twenty-nine

Peanut meal may be fed to hogs in the ratio of one part to three parts of corn without causing soft or oily pork.

Ripen, color, blanch with ETHYLENE

Increases profits—Saves time—Reduces losses

Inexpensive



Easy to use

All these advantages

1. Greatly reduces time required for ripening.
2. Prevents waste from rots and fungous growths.
3. Improves flavor.
4. Produces better color by more complete action on the green pigments.
5. Ripening and coloring go on simultaneously.
6. Makes possible the marketing of heretofore unknown tropical fruits.
7. Ripens and colors fruits and vegetables that mature late in the season.
8. Is inexpensive and easily used. Simple apparatus and little experience required.
9. Can be applied equally well to a few crates or a whole carload of fruit or vegetables.
10. Is neither injurious nor dangerous. Widely used. A proved success.

For information write to

CARBIDE AND CARBON CHEMICALS CORPORATION

30 East 42nd St., New York City

P. O. Box 596, Los Angeles, Calif.; 114 Sansome St., San Francisco, Calif.

Warehouses in Tampa, Jacksonville, Los Angeles and other principal cities

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HOTEL HILLSBORO

Tampa, Fla.

TOP O' THE TOWN

European Plan, Fireproof 300 Rooms With Baths

THE CENTER OF TAMPA

"Please Say You Saw It In The Citrus Industry"

Thirty

ORANGE FESTIVAL NOW STATEWIDE INSTITUTION

Continued from page 14

to displays of citrus by-products and the allied industries and 50 to miscellaneous commercial and industrial products. This announcement revealed the extensive plans for the festival and made exhibitors eager to secure space. The master stroke in the working of the plan came when Guthrie induced the Florida Citrus Exchange and the Polk County Sub-Exchange to underwrite an entire exhibition building, comprising 50 booths, these to be occupied by the individual packing houses under the Exchange. Following this a large number of the booths in the other citrus exhibition hall were placed with independent houses. One after the other the commercial and allied industrial concerns began to secure space, until by the early part of January more than 80 per cent of the booths had been sold.

IMPRESSIONS

Continued from page 19

of their problems by this important carrier than at any time within recent years, for Mr. Davis is a close student of the workings of the industries upon which that railroad must depend for its tonnage.

INCREASED USE OF MOTOR TRUCKS IN MARKETING FARM PRODUCE

Continued from page 22

on the truck causes the berries to settle in the boxes which, of course, is a disadvantage. So there is some disagreement whether the fruit after a long trip really arrives in better condition than by express. The truck rate is slightly higher than the express rate but that is sometimes offset by cost of handling from the cars.

The men gathering information about trucking produce to New York seem to be impressed with the motor wagon activity in fruit at the peak of the rush season when about nine-tenths of the New Jersey apples and peaches were coming by truck. Further changes and developments are suggested by the opinion of the reporters that the produce trucking movement will be still greater within a few years.

PLANT BOARD NOW HAS VEDALIA FOR GROWERS

Dr. E. W. Berger, entomologist of the State Plant Board, announces that his department now has available for distribution a limited number of colonies of Australian Ladybeetles,

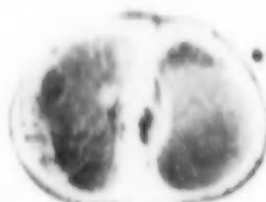
THE CITRUS INDUSTRY

sometimes called the Vedalia. These beetles are recognized as the most economical for the control of cottony-cushion scale.

Due to an extreme scarcity of the Vedalia during the latter part of 1928 very few colonies could be supplied to growers. Those in need of these beetles should get in touch with Dr. Berger at once, he says. The charges are one dollar for colony of 10, with directions. One colony is generally sufficient unless there are

isolated infestations, in which case one colony will be needed for each infestation.

Farmers of Nassau County are planting oats with their vetch and Austrian peas. They expect to utilize the crop for grazing and then turn it under to enrich the soil. They are fertilizing with superphosphate and nitrate of soda.



**... thinner rind
.. better shape
.. more sugar**

Both these fruits came from trees receiving the same citrus fertilizer. The upper fruit received an additional potash top dressing. Note thinner rind and improved shape.



FOR YOUR CITRUS

If you are not satisfied with the vigor and fruitfulness of your citrus trees, if they look limp under the strain of heavy crops, if your quality is not what it should be, try more potash in your fertilizer.

Potash supplies sugar and starch for the formation, development and proper maturity of the fruit. Increasing their supply of potash improves the shapes of fruits, gives them a smooth, thin, pliable rind, greatly improving their dessert and shipping qualities.

Trees producing heavy crops frequently suffer from a shortage of potash. In the late summer when the fruits are storing starch and sugar freely, if the potash is only sufficient to supply this heavy drain, very few fruit buds for the following year will be formed.

This condition is called "off year" bearing and is corrected by adding enough potash to give the trees sufficient stamina to develop and mature the present crop, and also to set fruit buds for the future. Plenty of potash in your fertilizer will help you to have a good year every year.

SEND FOR YOUR FREE COPY OF OUR
CIRCULAR, "BETTER CITRUS FRUITS."

Agricultural and Scientific Bureau
N. V. POTASH EXPORT MY.
of Amsterdam, Holland

Hurt Building • Atlanta, Ga.

POTASH

PAYS

"Please Say You Saw It In The Citrus Industry"

January, 1929

SOUTH AFRICAN FOREIGN

TRADE IN FRESH FRUITS

Continued from page 6

States; the result is that deciduous fruits, such as pears, peaches, and plums, are exported from November to June and citrus fruits from June to November.

The export figures already given are for the calendar years 1923 to 1927. From November, 1927, to June, 1928, there were exported from the Union of South Africa 1,927,000 boxes of pears, as against 354,000 boxes in the previous similar period; 460,000 boxes of grapes, as against 500,000 boxes; 180,000 boxes of peaches, as against 330,000 boxes; and 224,000 boxes of plums, as against 242,000 boxes in the previous similar period.

South African Fruit-Growers' Organizations—Government Control of Exports

In order to place the organization of the fresh-fruit industry and the fruit-export trade on a table basis, and with the object of eliminating the shipment of inferior grades, the South African Fruit Growers' Exchange was formed in December, 1921, including in its membership citrus and deciduous fruit growers in the Union of South Africa and in Rhodesia. In 1924 the deciduous-fruit industry organized, for the purpose of engaging in export trade, the Western Province Central Deciduous Cooperative Co. (Ltd.). As previously stated, most of the deciduous fruit is produced in the Cape Province.

Exports of fresh fruits from South Africa are regulated by the provisions of the fruit export act, passed in 1914. These regulations are revised each year. They deal with grading and packing, the marking of containers, and with other matters pertaining to fresh fruit intended for export.

There is also in existence a Government body called The Perishable Products Export Control Board. This board consists of six members, three appointed by the Governor General and three appointed by and representing the citrus fruit, deciduous fruit, and poultry and egg industries, one member for each industry. One of the three members appointed by the Governor General acts as chairman, with power to vote.

The duties of the Export Control Board, so far as fresh fruits are concerned, are to control exports, to obtain in advance, from growers and shippers, estimates of the quantity of fruit which they will probably have for export, and to allot shipping

THE CITRUS INDUSTRY

space for the fruit in the order of its arrival at port of export. The expenses of this export control of fresh fruits are met by levying a small amount on each ton of fresh fruit exported.

CLUB WORK SO POPULAR BOYS WILLING TO SEW

Four-H club work is so popular in Polk County that boys will even sew just to get a chance to be club members.

The story told by Misses Lois Godfrey and Mabel Preston, home

Thirty-one

demonstration agents. A group of small boys wanted a club. They asked the home demonstration agent about it. She thought she would have some fun, so told them they could have a club if they would agree to *learn to sew*, just as the girls do. They took her literally and brought sewing material.

It is needless to say that these boys will now have any kind of club they desire.

Diseases of livestock flourish in dirty places. Clean the premises frequently.



PENINSULAR INSECTICIDES
Peninsular Chemical Co.

Peninsular Crop Protection

Before we decide to become distributors for any product, we first of all submit it to thorough test in the laboratory of our own Research Department. Then we give the product a very severe try-out in the grove or on the farm. After we are fully satisfied that there is nothing better on the market for its purpose, then, and only then, do we sponsor it and permit it a place in the list of Peninsular Insecticides. When you buy any product backed by the Peninsular Chemical Company you can be sure that you are getting a leader in its line.

SOME DEPENDABLE PENINSULAR PRODUCTS

EMULSO for White Fly and Scale. DERRISOL for Aphids. PENINSULAR CALCIUM CASEINATE for Oil Sprays. DOW DRY LIME, SULPHUR, NIAGARA DUSTS and DUSTERS, HARDIE SPRAYERS—obtainable from authorized dealers, our warehouses or direct from us.

WRITE FOR PRICE LIST, CATALOG OF PENINSULAR DEPENDABLE INSECTICIDES AND INSECTICIDE FACTS. ALL FREE AND POSTPAID.

WAREHOUSES AT ORLANDO, WINTER GARDEN, SANFORD, FROSTPROOF, SARASOTA, WINTER HAVEN, BRADENTON, FT. MYERS AND LAKE WALES.

PENINSULAR CHEMICAL CO.
TAMPA, FLORIDA

"Please Say You Saw It In The Citrus Industry"

Florida Climate

Southern Sunshine

The six States served by the Atlantic Coast Line constitute the most popular winter resort section in America. Here persons desiring to escape the severe and cheerless winters of the north and west will find conditions to meet the widest range of demands, says a Coast Line folder.

For those who need, or like, a maximum of warmth, Florida has perhaps the greatest appeal. Indeed, says Dr. John Harvey Kellogg, the great health authority, in a recent article in Good Health, many thousands of invalids and semi-invalids "have found in the sunshine of Florida such a restoration of their physical powers as has enabled them to live comfortable and useful lives; while if they had remained at home, in the north, they would have soon been in the hands of the undertakers.

"This sunny land is, perhaps, the most favored section of the whole United States, considered from a health standpoint. Florida is the one State in which one can find everything worth while which pertains to tropical climes without the disadvantage of the extreme tropics.

"Mangoes, avocados, papayas, all the citrus fruits, and with special culture, a hundred other tropical fruits flourish, and a dozen varieties of palms, including the graceful coconut and the stately date palm, thoroughly tropical in aspect as are often encountered in regions much closer to the Equator.

"For every year of life lost in Florida by hurricane, Florida sunshine will add at least a thousand years of life in the multitudes of invalids and semi-invalids who are flocking to this sunny land, not only from the northern States, but from foreign lands, for Europeans as well as Americans are rapidly discovering the American Rivera offers climatic as well as other advantages far superior to those offered by the justly famous regions which border the north shore of the Mediterranean.

"The American people are just beginning to discover the value of sunshine, of which unfortunately, during five months of the year, dwellers in the north are almost wholly deprived.

"Winter sunshine in the northern States is not only scant in amount, but is almost wholly lacking in the ultra-violet rays which are regarded by many as the essential health-promoting element of the sun's rays."

THE CITRUS INDUSTRY

January, 1929

ROOT-KNOT NEMATODES

NOT ACTIVE IN WINTER

Although it is not wise to attempt to grow the fall crop of English peas on land that is infested with the root-knot nematode, the spring crop may be grown with fairly certain results if the land is not too heavily infested, advises J. R. Watson, entomologist of the Experiment Station.

The winter crop is planted in De-

cember or January and grows at a time when nematodes are not very active. They do not begin to work much until about April around Gainesville, Mr. Watson has observed. This period comes a little earlier in sections south of Gainesville.

Don't shoot a ribbit that acts lazy or sick; it might have tularemia, the disease which is so easy to contract from handling an infected rabbit.

To obtain the most heat from your electric heater; keep the reflector brightly polished.



IT has always been the policy of this company never to offer for sale anything it cannot ship. Consequently, when there was a shortage of Genuine Peruvian Guano last early summer we withdrew all those Gulf Brands into which Genuine Peruvian Guano entered as an ingredient. We have now ample supplies of Genuine Peruvian Guano and so have restored all the withdrawn Brands to our list. None of this Genuine Peruvian Guano will be sold direct. It will all be used in manufacturing those Brands of Gulf Fertilizer whose formulae call for Genuine Peruvian Guano.

Write for price list and Catalog containing full formulae of all Gulf Brands of Fertilizer, and the actual materials used in their manufacture.

WAREHOUSES

BRADENTON TERRA CEIA LAKE WALES WINTER HAVEN
WINTER GARDEN SARASOTA RICHFIELD SANFORD



"Please Say You Saw It in The Citrus Industry"

Inquisitive Farmers Play Scientific Role by Making Own Tests

Secrets of the Soil are Sought by Many Florida Farmers, Survey Reveals

That many farmers have a scientific or inquisitorial turn of mind is indicated by the results of a survey of over 48,000 farmers in 34 States who were personally and uniformly interviewed by representatives of the National Fertilizer association.

The survey was made during the past summer to obtain a comprehensive picture of the "what, where, when, who, how and why" of the use of fertilizer in the principal consuming areas of the country.

Of the 48,055 farmers who replied to the question, "Have you ever made any comparisons with or without fertilizers?" 779 were in Florida.

A compilation of all the answers of Florida farmers shows that 20.8 per cent have made tests on their farms to determine the effect of fertilizer applications as compared with no fertilizer. In addition, 33.4 per cent said they had made tests of different kinds and amounts of fertilizer, thus indicating that many farmers make use of the best method known to scientists—experimentation.

Of the 48,055 farmers in 34 States who replied to the above question, 37.1 per cent, or nearly four out of ten, said they had tried tests with and without fertilizer, and 33.4 per cent, or about three and one-half out of ten, said they had tested different kinds and amounts.

Commenting on the replies of farmers to this question, Charles J. Brand, executive secretary and treasurer of the National Fertilizer association, Washington, D. C., points out that fertilizer manufacturers and agricultural extension services generally encourage farmers to make tests. He states that manufacturers know from experience that the farmer who tests fertilizer on his own farm learns more accurately the analysis of nitrogen, phosphoric acid and potash in complete fertilizer that his soil needs to produce the most profitable yields. Mr. Brand says that when a farmer makes a test, usually the increase in yield, the hastening of maturity or the improvement of quality so impresses him that he thereafter uses more and better fertilizer.

Judging from the survey, Kansas farmers are most inquisitive as to how their soils respond to fertilizer. 78 per cent of those interviewed reporting tests to compare the results with and without fertilizer. However, the number of interviews in Kansas was comparatively small, though the high percentage is thought by Mr. Brand to indicate a desire by Kansas farmers to utilize fertilizer in their production operations. Michigan and

Texas showed 60 per cent; Vermont 54.7 and Mississippi 52.

In South Carolina, where farmers have used fertilizers many years, the percentage was 11.3, the lowest of any State. Others in which low percentages were shown are: Rhode Island, 12.1; Oklahoma, 12.5; Iowa, 18 and Florida, 20.8.

Dysentery is a disease that affects bees when they are kept in long confinement. Southern beekeepers have little trouble with this disease.

Permanent pastures of carpet grass and lespedeza will grow in our woodlands. In this way the land may be utilized for growing timber and growing cattle.



Grow
LARGER AND
BETTER CROPS
BY USING THIS
BETTER FERTILIZER

Larger and better crops can be grown with NACO BRAND Fertilizer, for quality and yield are directly dependent on the right kind and amount of plant food available for your crop.

During the first 10 months of 1928, DOUBLE the amount of NACO BRAND Fertilizers were used in Florida than during the same period of 1927, and 1927 showed almost a similar increase over 1926.

Results in grove and field have made possible this remarkable record of progress, and more and more growers are learning of the extra profits that are to be made with this better fertilizer.

Decide now, that during 1929 you will use this better fertilizer and get the extra profits that are bound to come with increased quality and larger yield.

NITRATE  **AGENCIES**

1401-1405
LYNCH BUILDING

COMPANY

JACKSONVILLE
FLORIDA

Doctor Advises Grapefruit For Flu

While thousands of new cases of influenza are being reported and the number of deaths are increasing, 1,100 children of a New York community and hundreds of others in and about New York City are being safely carried through the epidemic through the means of grapefruit juice. Authority for the above is Dr. Daniel Hodgdon, former president of Hahnemann Hospital in Chicago, now a prominent physician in the wealthy Westchester County of New York.

Dr. Hodgdon is of the opinion that the annual winter increases of cold might be completely controlled in the future by the use of citrus fruits. He foresees the time when nearly every person in the United States will take the juice of at least two grapefruit a day during the winter months.

While the humanitarian benefit of this use of grapefruit stands uppermost, Florida has a special primary interest in that the state is the main producer of the grapefruit and second largest of oranges, which has risen to hold second place

to grapefruit in cure and prevention of influenza and colds.

Dr. Hodgdon's experience and method of practice in the prevention and cure of influenza was uncovered by Erwin, Wasey & Company, advertising agency of the Florida Citrus Growers Clearing House. The agency's research staff is seeking all practical information available on the value and use of citrus fruits in medical practice. On obtaining the information first hand from Dr. Hodgdon, the agency's publicity staff lost no time preparing a news article on his experience and advice, which was given to the press of the nation and was widely published. Marked stimulation in the use of citrus has followed.

Dr. Hodgdon has 1,100 children under his care. All are free from influenza, which he attributes to the careful feeding of citrus fruit juices.

"Not only among children is this cure and preventative to be noticed," Dr. Hodgdon said. "Older people are using it to advantage as well. And if I might take a look

into the future, I would say that every member of the average American family in the future will increase their use of grapefruit juice until they take each day, during the cold winter months, the juice of at least two grapefruit."

Dr. Hodgdon makes a radical recommendation in the use of orange juice, advising its use following a meal instead of before. Tests have shown, he explained, that in addition to being as tasty after a meal as before, the juices were of far more value to digestion if taken after eating.

He suggests the following daily citrus juice diet as the most likely to aid in checking colds:

Breakfast—One grapefruit and a glass of orange juice after a light breakfast.

Luncheon—Vegetables and a glass of grapefruit juice.

Dinner—Fruit cocktail and fresh vegetables with a salad, to be followed after coffee with at least two glasses of orange juice, especially if meats or oysters have been eaten.

During the Satsuma Festival in Marianna, held in November, every merchant in town donated a window to be used for community agricultural exhibits.

FLORIDA ORANGE FESTIVAL - Winter Haven

List of Prize Awards

PRIZES FOR PACKING HOUSE EXHIBITS

Three handsome silver loving cups will be awarded as 1st, 2nd, and 3rd prizes for the best packing house exhibits from each of the thirty-two citrus producing counties in Florida. Judged on point scoring system. Score sheets may be obtained as a guide in preparing exhibits. Exhibitors restricted to the use of fruit from their own county only.

GRAND PRIZES

First prize winners in the county division will again be judged for grand prize awards. Cash prizes of \$500 first, \$250 second and \$100 third will be awarded.

BY-PRODUCTS PRIZES

Awards of \$50 first, \$30 second and \$20 third will be made for the best commercial displays of marketable canned or bottled citrus by-products, juices, preserves, extracts, oils, candies, etc.

PRIZES FOR INDIVIDUAL GROWERS

Awards of \$200 and cup. First: \$100 and cup. Second: and \$50 and cup. Third: will be made to individual citrus growers making the best display of fruit from their own grove. Winners to be judged by point scoring



system. Score sheets may be secured as guide to preparing exhibit.

FRUIT PACKING CONTEST

Two beautiful silver loving cups and three cash prizes: First \$25, Second, \$15, and Third, \$10, are offered in a free-for-all fruit packing contest. Separate contests for both men and women.

SPECIAL PRIZES

Awards of \$50 First, \$30 Second, and \$20 Third will be made for exhibits having the greatest educational value. Prizes in equal amounts are also offered for the best decorated booths.

Ribbons will be awarded winners in all classifications and in all divisions. Handsome silver loving cups and medals in gold, silver and bronze will be awarded the winners of all events in the Water Carnival, swimming, diving and boat racing contests, and many other features.

For Space Applications or Information, Address: FLORIDA ORANGE FESTIVAL, Winter Haven, Florida

**BLACKWELL NAMED
OKLAHOMA A. & M. DEAN
SUCCEEDED BY STALLINGS**

C. P. Blackwell, agronomist of the Soil Improvement Committee, The National Fertilizer Association, in charge of the Shreveport, Louisiana, office, has resigned to become Dean rector of the Agricultural Experiment Station, A. and M. College Stillwater, Oklahoma.

J. C. Pridmore, Director of the Southern Division of the Soil Improvement Committee, in announcing Blackwell's resignation also announced the appointment of Dr. J. H. Stallings, agronomist of the J. C. Penny-Gwinn farms in Florida, to succeed Blackwell.

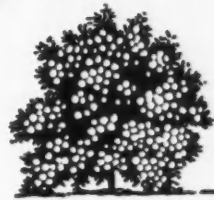
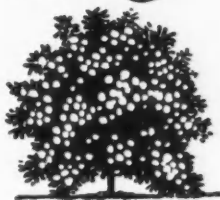
Blackwell is a graduate in agriculture of the institution to which he now returns as dean and director. While at A. and M. he was a letter man in track, specializing in the quarter mile. He has done graduate work at Cornell University, was a member of the faculty of the University of Texas, and later became head the experiment station, Clemson College, South Carolina, where he served for seven years. He has been a member of the staff of the Soil Improvement Committee for the last four years, in charge of the work in Louisiana, Arkansas, Texas, and Oklahoma.

Dr. Stallings, who joins the staff of the Soil Improvement Committee, received his B. S. degree from Texas A. and M. College in 1914, majoring in agronomy. He was awarded his Master's degree in soil fertility by Iowa State College, Ames, in 1917, and his PhD in soil fertility by the same institution in 1925. He was farm director of an agricultural school in Mississippi from 1914 to 1916; assistant agronomist at the Alabama Experiment Station, Auburn, during the summer of 1916; held a teaching fellowship at Ames from 1916 to 1918; was assistant professor of soils at Ames from 1919 to 1920. He was then appointed professor of agronomy at Texas A. and M. College, where he served until 1926. For the last two years he has been agronomist of the J. C. Penny-Gwinn Corporation.

Eight hundred pounds of vetch and Austrian peas have been seeded by 12 farmers in Bradford County. These crops may be planted as late as the middle of November.

Plant food costs less per pound when it comes in high grade fertilizers.

WHY
is only 15%
really fancy fruit



IT has been said—and not vigorously disputed, that no more than 15% of Florida's Citrus crop ever grades fancy fruit. Yet we all know what sort of trees and what sort of care and cultivation produces that 15%.

GET the right fertilizer to supply soil-deficiency. Give the trees a chance to breathe, drink and eat and Nature will do the rest. Hard work?—Yes. Expense?—Yes. But also a good market—a quick market and cash—cash—cash always, for heavy, juicy, sound first grade fruit.

THERE'S no mystery about it. The trees that have a fair chance do their work well and make money for their owners. Trees grow better in some soil and some localities than in others. But any tree, anywhere, that is not hopelessly diseased, can be made to produce better fruit.

WITH ORANGE BELT Fertilizer and the personal service and co-operation of our field force—we are steadily increasing the percentage of first quality production in hundreds of groves. We can increase the quantity and quality of the production of any grower who will do his part.

ASK US HOW

LYONS FERTILIZER CO.

Tampa

Florida



OFFICE

805 Citrus Exc. Bldg.

PLANT

35th St. and 4th Ave.

"QUALITY FERTILIZER FOR QUALITY FRUIT"

"Please Say You Saw It In The Citrus Industry"

CITRUS FERTILIZING

IN FLORIDA

Continued from page 8
the fourth year, each tree should receive one pound more per application than during the previous year. The amount per application after the fourth year is governed by the size and general condition of the tree.

In all cases the fertilizer should be thoroughly worked into the soil.

Bearing Trees

With proper care and fertilization a citrus tree should come into bearing about the fifth or sixth year. It should then receive from six to ten pounds of fertilizer at each application. This should be increased at the rate of two to five pounds per application each year. A tree that will bear ten boxes of fruit should receive from fifteen to twenty-five pounds to the application. The exact amount must depend upon the condition, size, age and variety of the tree, the character and cultivation of the soil and analysis of the fertilizer selected.

If you are at all in doubt as to the quantity, formula and analysis to use, we suggest that you have an experienced field man go over your grove.

Applying Fertilizer

In fertilizing citrus trees, the fertilizer should be spread over the surface of the ground in a circular band around the tree. As the root system of the tree covers a greater area than the top, you should commence at the outer limbs and spread the fertilizer outward where it can be taken up by the feeding roots. Never put the fertilizer under the branches or close to the trunk. Always be sure to work the fertilizer into the soil promptly and thoroughly. When trees have attained a size causing their root systems to lap, fertilizer should be broadcast. A fertilizer distributor will prove economical for broadcasting if acreage warrants.

Cultivation

Next to fertilization, cultivation is undoubtedly the most important factor entering into successful grove management. Maximum results cannot be obtained from the use of fertilizer without proper cultivation. The objects in cultivation are three-fold, first, for aeration and conservation of moisture; second, for hastening and aiding the availability of the plant food elements by stimulating soil bacteria; third, for controlling growth of grass and weed.

In the early spring, as soon as danger from cold has passed, harrowing of the grove should be started. This should be continued for ten days or two weeks, until the summer rains begin. Around young trees a

For Delivery--

January
February
March

A fair supply of excellent quality nursery trees for immediate plantings

Parson Brown }
Pineapples } Oranges
Valencias }

Marsh Seedless } Grapefruit

Dancy } Tangerines

All are of the standard which has made Lake trees notable over the period of twenty-five years this nursery has been at the forefront in Florida. These trees are all on selected sour Orange rootstock, which has always been our specialty.

We can supply both Duncan and Marsh Seedless Grapefruit on selected grapefruit roots.

We also have a certain amount of Valencias and Tangerines on rough lemon root, which we offer at a worthwhile discount below our standard sour orange stock.

You are invited to visit us here at the nursery on the main highway three miles east of Leesburg, on the road to Eustis and Tavares and to inspect personally the character of our production.

Lake Nursery Company

Leesburg, Florida

"Please Say You Saw It In The Citrus Industry"

narrow strip should be cultivated during the entire summer, but cover crops should be allowed to grow in the center. On bearing trees, all cultivation should cease and cover crops allowed to grow. In early fall cover crops should be cut down, preparatory to plowing under when dry. After plowing is completed, harrowing should be started and continued until the usual fall application of fertilizer is worked in. Cultivation should then cease until spring.

Cover Crops

Most all Florida soils adapted to citrus are deficient in organic matter. Where this deficiency is pronounced it is indicated by subnormal growth of the trees, undersized leaves frenching, etc. To counteract this condition it is necessary to grow leguminous cover crops during the summer months. Those best adapted to Florida conditions are beggar weed, cow peas, velvet beans and crotonia.

On some of the poorer soils, it will be found necessary to use fertilizer in order to grow a good cover crop. Leguminous cover crops, in addition to supplying organic matter also provide a certain amount of Nitrogen for the tree's use.

INSPECTION OF SPANISH ORANGES FOR EXPORT

In a report to the Department of Commerce, Mr. Charles A. Livengood, American Commercial Attache, Madrid, Spain, states that in order to prevent the shipment of Spanish oranges of poor quality to English markets, the Spanish government has appointed a committee of experts to inspect the fruit before it is shipped and to issue certificates guaranteeing its quality. In connection with this step, adds Mr. Livengood, the Spanish press quotes an attache of the Spanish Embassy at London, as follows: "The appointment of this committee by our government is a revolutionary measure in the history of the orange trade. In the past, shipments of damaged oranges have been sent to London. The new committee has full power to adopt measures against unscrupulous exporters. It is now working with the new crop, and British merchants may be assured that in the coming season the quality of oranges shipped will be of the highest."

Beautification work is now carried on in Punta Gorda by a community beautification league, recently organized to coordinate the work of several civic bodies.

Real Profits in CITRUS

*Chilean Nitrate of Soda
puts real profits in citrus,
because . . .*

It is the quick-acting nitrogen your trees need. It gives them new life and vigor. Fruit already carried will grow larger and juicier. Chilean Nitrate will also put the trees in perfect winter condition, so that bud formation in the spring will be plentiful. The trees will set a heavy new crop. It will mature earlier, too.

Chilean Nitrate is the standard nitrogen fertilizer for citrus. It is the natural product, not synthetic. Easy to handle—starts to work as soon as it is applied.

Four-year Proof!

For the last four years John Curtis, Lake Wales, Fla., has applied from 10 to 15 lbs. Chilean Nitrate to his 24-year old grapefruit trees. He says it has greatly increased the yield per tree. Kept the trees in better condition, too.

FREE—New Fertilizer Book

Our new 44-page book, "How to Use Chilean Nitrate of Soda" gives information about citrus and all other kinds of fruit, truck, grain, etc. Write for Book No. 1, or tear out this ad and mail with your name and address on the margin.

**Chilean
Nitrate of Soda**
EDUCATIONAL BUREAU



Orlando Bank & Trust Bldg.
Orlando, Florida

In writing please refer to ad No. E-25

"Please Say You Saw It In The Citrus Industry"

AWARDS FOR SOILS STUDY

Four scientists who have attracted international attention through their crop and soils studies share the Chilean Nitrate of Soda Research Award for 1928. They are:

Dr. Jacob G. Lipman, Dean of Agriculture at Rutgers College and Director of the New Jersey Agricultural Experiment Station.

Dr. T. L. Lyon, Professor of Soil Technology at Cornell University.

Dr. Edwin Broun Fred, Professor of Agricultural Bacteriology at the University of Wisconsin.

Dr. Frank Thomas Shutt, Dominion Chemist of Canada.

The Award carries a fund of \$5,000 which has been distributed equally among these four men, each receiving \$1,250. The money is to be spent in furthering research projects or for advancement of the recipient in his specialty. Some of the scientists, it has been suggested, may use their share of the fund to attend the International Soils Congress in Russia in 1930.

Dr. Lipman has contributed his share to the Award to Rutgers University for the establishment of the Cook-Voorhees Soil Science Fund with the object of widening the scope of soil science research. It will commemorate the notable contributions to scientific agriculture made by Dr. George H. Cook and E. B. Voorhees, first and second directors respectively of the New Jersey Experiment Station. It is understood that the University trustees will make further efforts to have the fund increased.

The American Society of Agronomy sponsored the Award and a committee of that organization made the selections.

The Awards were based upon the scientist's investigations in the most efficient uses of nitrogen. Dr. Lipman, widely known for his editorial work and leadership in agricultural movements, has also attained prominence through his studies of the comparative efficiencies of different nitrogenous fertilizers. Dr. Lyon has performed extensive research in determining the natural factors which control the supply of nitrates in the soil. Dr. Fred is known both for his classification of nitrogen bacteria and his investigations of the fixation of nitrogen through legume organisms. Dr. Shutt has studied the effects of nitrogenous fertilizers on all Canadian crops.

Agricultural scientists have long recognized the need of more fundamental knowledge of nitrogen in its application to farming. It was to stimulate such research that the Chilean

THE CITRUS INDUSTRY

Nitrate of Soda Educational Bureau established an Award one year ago. With a trend toward lower prices for nitrogenous fertilizers and a more thorough understanding of their application, it may be expected that the American farmer will profit through increased yields and lower cost of the unit of production.

To remove lint from broadcloth use a clean sponge wrung out of water.

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The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

REAL ESTATE

FOR SALE—By owner, eighty acres, two-year-old best looking grove at reasonable price. Howey-in-the-Hills. For further information write "A. Z." P. O. Box 1261, Orlando, Florida.

WILL EXCHANGE West Texas cattle ranch for unimproved or improved land in Florida. What have you? Give price and full particulars. T. E. Bartlett, 3410 McKinley Ave., El Paso, Texas.

"BOOK OF TRUTH"

For planters of new groves
Is yours for the asking.

Write Today.

OCKLAWAHA NURSERIES INC.

"Pedigreed Citrus Trees" Florida
Lake Jem.

FOR SALE—Pineapple land in winterless Florida. \$15 an acre. Almost Ake. Venus, Fla.

WANT TO SELL HALF INTEREST IN FIFTEEN ACRE SATSUMA BEARING GROVE ON HIGHWAY NEAR PANAMA CITY, ROBT. LAMBERT, OWNER. FOUNTAIN, FLA.

SATSUMA BUDWOOD from Bearing Trees. Hills Fruit Farm, Panama City, Fla.

WANT TO hear from owner having farm for sale; give particulars and lowest price. John J. Black, Box 93, Chippewa Falls, Wisconsin.

MISCELLANEOUS

RUNNER peanuts—Spanish peanuts Early speckled - Osceola - White Chinese and Bunch Velvet Beans. All varieties peas and Soybeans. Large or small lots. H. M. Franklin, Tenuille, Georgia.

HIGH BLOOD PRESSURE easily, inexpensively overcome, without drugs. Send address. Dr. J. B. Stokes, Mohawk, Fla.

WANTED

COMPLETE LINE OF CITRUS GROWERS' SUPPLIES

A well known reputable firm of national scope, marketing certain materials required by citrus growers, is extending its line of merchandise to cover complete re-

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quirements of its customers. If you have something excellent to merchandise—fertilizer, orchard heaters, pest control material or equipment, or any similar product for wide distribution—I can tell you whom you should see. Address: J. T. Pierson, 503 South Union Drive, Los Angeles, Calif.

WHITE WYANDOTT Cockerels, regal strain—the best in the country, direct from Martin pens. Utility and show birds \$5.00 each; also eggs for hatching \$5.00 per 15. W. A. King, Gen. Del., St. Petersburg, Fla.

BEGGARWEED SEED. Place your order for Beggarweed seed now and be assured of delivery. Write for special prices. Wm. G. Ranney, Box 297, Monticello, Fla.

PUREBRED PULETS FOR SALE—White Leghorns and Anconas ready to ship. Barred Rocks and R. I. Reds shortly. Several hundred yearling White Leghorn hens now laying 70%. Write or wire for prices. C. A. Norman, Dr. 1440, Knoxville, Tenn.

LAREDO SOY BEANS, considered free from nematode, excellent for hay and soil improvement. Write the Baldwin County Seed Growers Association, Loxley, Alabama, for prices.

FARMER AGENTS: Make \$25.00 weekly selling Comet Sprayers. Profitable winter employment. You take orders. We deliver and collect. Commissions weekly. Established 35 years. Particulars free. Busler Co., Box C-18, Johnstown, Ohio.

FOR SALE—All varieties bananas and citrus trees. D. A. Nigels, Palm Harbor, Fla.

FOR SALE—Dairy and stable manure, car lots. Link & Bagley, Box 464, Tampa, Fla.

AVOCADOS - SEED — Grafted. Reliable bearers only. John B. Beach, West Palm Beach, Florida.

BABY CHICKS: Send no money, shipped C. O. D., pay mail man when delivered. Leghorns \$14.00 per 100; reds, orpingtons, minorcas \$16.00; mixed \$13.00; live delivery, postpaid, Florida Baby Chickery, Lakeland, Florida.

ROUGH LEMON Seedlings in any quantity, special summer sale, very attractive prices. A. E. Nichols, Box 262W, Tampa, Fla.

FOR SALE—Complete unit citrus packing house machinery, Skinner washer and polisher Stebler sizer two car capacity. G. A. Robinson, Lake Wales, Fla.

WANTED—Position on farm or grove. Go any where, or do any honest work. W. B. Shaw, Bradley Junction, Fla.

WANTED—To hear from owner of land for sale. O. Hawley, Baldwin, Wis.

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